

STANDALONE  
*STANDALONE*  
**Plus** *Plus*

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# CMS

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## Remote Access Application

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# C/O/N/T/E/N/T/S

<b>C/O/N/T/E/N/T/S.....</b>	<b>2</b>
<b>1. Remote Management Software .....</b>	<b>5</b>
<b>1-1. Introduction.....</b>	<b>5</b>
1) Overview.....	5
2) Feature .....	5
3) System recommendation .....	6
<b>1-2. Installing Software.....</b>	<b>7</b>
<b>1-3. Starting the remote management program.....</b>	<b>8</b>
1) Starting.....	8
2) Graphic User Interface(GUI).....	9
<b>1-4 Real-time monitoring .....</b>	<b>12</b>
1) Viewing real-time images .....	12
2) Divided channel screen view .....	14
3) Screen magnification / Contraction function .....	20
4) Controlling the PTZ.....	22
5) Controlling the Two way Audio .....	25
6) Controlling the Relay Out .....	27
7) Controlling the audio.....	29
<b>1-5. User &amp; user group administrator .....</b>	<b>30</b>
1) User Group Administrator .....	30
2) User Administrator .....	34
3) User Group Property.....	37
4) User Log-in .....	38
<b>1-6. Automatic connection and address book administration.....</b>	<b>39</b>
1) Automatic connection function.....	39
<b>1-7. Real-time monitoring the address book site administration.....</b>	<b>41</b>
1) Add an address .....	41
2) Modify the address book.....	42
<b>1-8. Screen Layout Function .....</b>	<b>44</b>
1) Screen Layout administration .....	44
2) To use the screen layout.....	51
<b>1-9. DVR information setting .....</b>	<b>53</b>
1) Bandwidth Limitation Function.....	54
2) Network account management function .....	55
3) DVR Log File Viewer function.....	59
<b>1-10. DVR Setup Manager.....</b>	<b>63</b>

<b>1-11. Environments Setup</b> .....	<b>68</b>
1) Setting storage devices .....	68
2) OSD Setup .....	70
3) The border line setting .....	71
4) The Event line popup setting .....	72
5) Screen setting .....	74
6) Alarm output setting .....	75
7) Backup setting .....	76
<b>1-12. Video Image capture</b> .....	<b>77</b>
1) The current screen capture .....	77
2) Brightness/ darkness/ saturation/ color/ gamma adjustment .....	77
3) Color adjustment .....	78
4) Filter application .....	78
5) Original picture recover .....	79
6) Rotation .....	79
7) Left/right reversal .....	80
8) Up/down reversal .....	81
9) Save .....	81
10) Print .....	82
11) Image print .....	83
<b>1-13. To save Real time pictures</b> .....	<b>85</b>
1) To save Real time pictures .....	85
<b>1-14. To adjust colors</b> .....	<b>86</b>
<b>1-15. Full screen modes</b> .....	<b>87</b>
1) Full screen view .....	87
<b>1-16. Record search</b> .....	<b>88</b>
1) To search Recording .....	88
2) Select a search method .....	90
3) Select time and date .....	93
<b>1-17. Playback</b> .....	<b>95</b>
1) To playback .....	95
2) Record and playback per event .....	98
3) Recorded pictures download .....	99
<b>1-18. Local Player</b> .....	<b>103</b>
1) Record file search and playback .....	103
2) Record file search and playback .....	104
3) Smart search function .....	105
<b>2. MCMS(PDA Viewer)</b> .....	<b>107</b>
<b>2-1. Overview</b> .....	<b>107</b>
<b>2-2. Installation</b> .....	<b>107</b>
<b>2-3. Running and using</b> .....	<b>110</b>
<b>3. Transcoder</b> .....	<b>116</b>
<b>3-1. Overview</b> .....	<b>116</b>
<b>3-2. Running and using</b> .....	<b>116</b>

<b>4. Calculator .....</b>	<b>123</b>
<b>4-1. Overview .....</b>	<b>123</b>
<b>4-2. Running and using .....</b>	<b>123</b>
1) How to run it .....	123
2) Description on detail functions.....	125
<b>5. Network Upgrade .....</b>	<b>130</b>
<b>5-1. Overview .....</b>	<b>130</b>
<b>5-2. Running and using .....</b>	<b>130</b>
1) Running .....	130

# 1. Remote Management Software

## 1-1. Introduction

### 1) Overview

The CMS is designed to manage the DVR through the network at a distance.

You can use the following functions using the remote management software.

- Remote real-time image monitoring
- Remote search and playback of recorded images
- Smart Search and playback of images stored in the user computer
- System setting for the remote DVR
- Calculation of time available to record depending on the hard disk space
- Transform the MPEG-4 format download and recorded files to MPEG-1 format files
- System upgrade
- Other functions

### 2) Feature

- With one computer, connects to the remote DVR up to 4,096 units
- Remote search and playback of recorded images
- Smart Search and playback of images stored in the user computer
- System setting for the remote DVR
- Calculation of time available to record depending on the hard disk space
- Up to 8 users can connect to one DVR at the same time
- With 16 channel connections, image data transmission at up to 120 fps
- real time monitoring, remote control record and replay, and full screen playback function
- Monitoring using Drag & Drop by channel
- Magnify / contract real time image
- Image and voice backup by network download
- Replay and smart search function of Backup PC file
- Backup of recorded images using the download
- Search and playback of backup local files
- Modifies, edits, saves and applies settings such as record/schedule/NTP/network of the DVR
- User-friendly Graphic User Interface(GUI)

### 3) System recommendation

Software	<ul style="list-style-type: none"><li>* OS: Windows 2000 Service Pack 4, Windows XP Service Pack 2, Windows 2003 Service Pack 1, Windows Vista</li><li>* Direct X 9.0 or higher</li><li>* Internet Explorer 6.0 or higher</li></ul>
Hardware	<ul style="list-style-type: none"><li>* CPU: Intel Pentium4, 3.0 GHz</li><li>* RAM: More than 512 MB (DDR)</li><li>* Video Card: NVIDIA FX chipset-based More than 128MB ATI Radeon 9000 Series(AGP) ATI Radeon x3000 Series(PCI Express) Matrox Chipset-based More than 64MB Video memory of more than 64MB Product supporting the YUV Format and Overlay</li><li>* HDD: More than 20GB</li></ul>

## 1-2. Installing Software

- ① Insert the remote management software CD provided with the product into the CD drive.
- ② Click the Setup.exe file.
- ③ If the installation language selection window is displayed, select an installation language and click the [Ok].
- ④ If the installation wizard is displayed, continue to install it by following the screen guide.

### **CMS**

This remote management program allows the user to utilize real time monitoring, search, playback, change of DVR settings and system software upgrade by accessing several DVRs using the network.

### **TransCoder**

This program transforms the MPEG-4 format download and recorded files to MPEG-1 format files, allowing the user to see them using the Windows Media Player.

### **Network Upgrade**

This update program is used to update the DVR by utilizing the RS232C Cable and Cross Cable. You could upgrade with using network IP address.

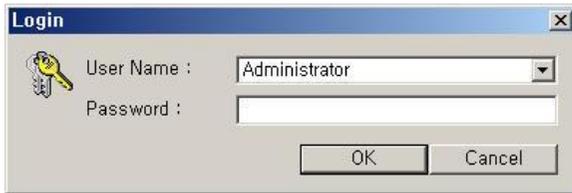
### **Calculator**

The calculator program estimates the record duration depending on the HDD space and record settings.

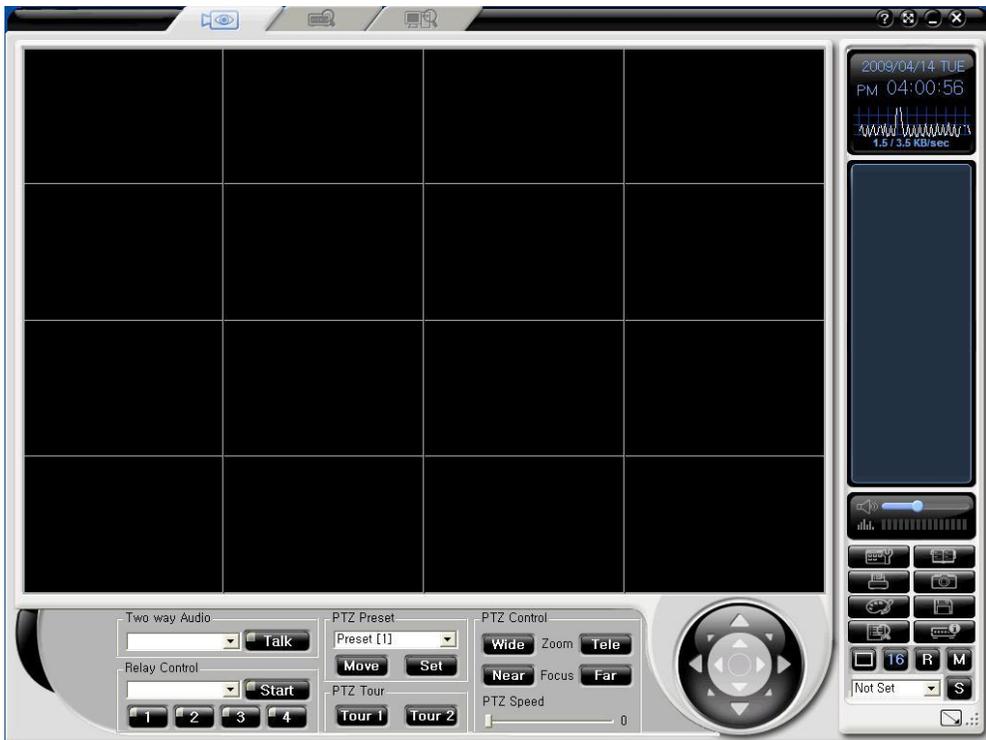
## 1-3. Starting the remote management program

### 1) Starting

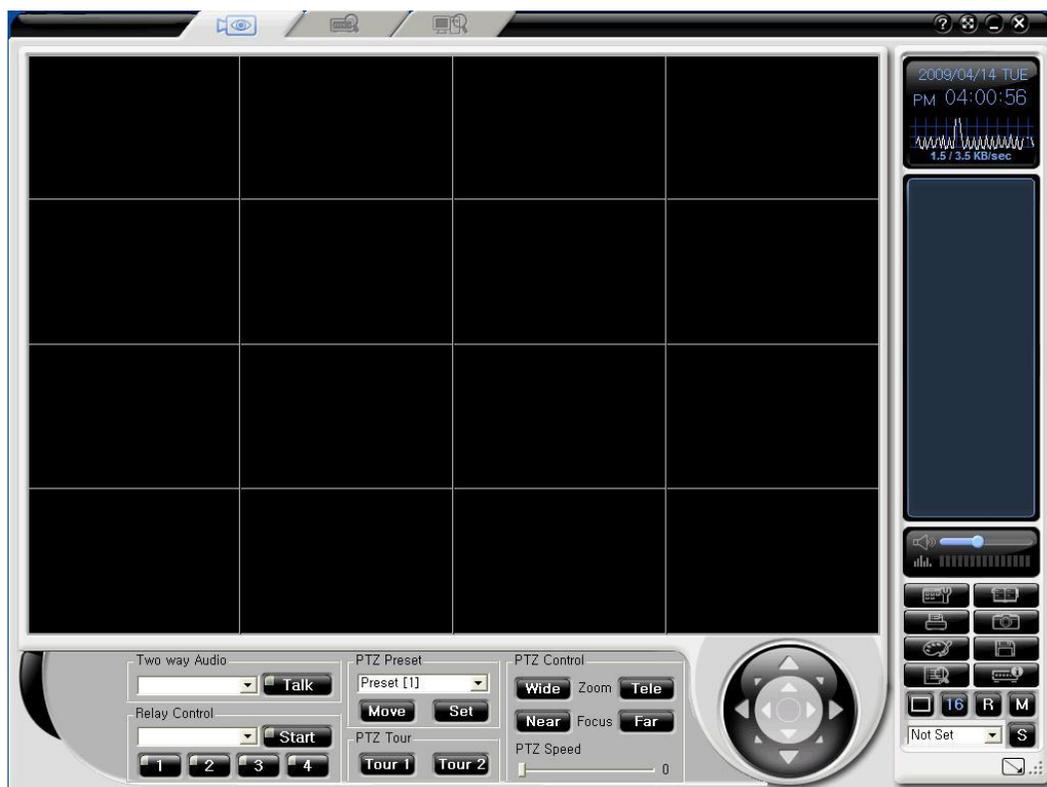
② When a user login window appears, enter the manager code to run a program  
(Default Password: 1111111)



③ When the program is run, the following startup screen is displayed.



## 2) Graphic User Interface(GUI)



### 1 Function mode selection tabs



Remote real-time monitoring



Remote search and playback of recorded images



Search and playback of images stored in the user computer

### 2 Window control and program exit buttons



Version information



Window minimization



Window maximization



Program exit

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### 3 Function buttons

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Environment setting



Address Book



Image Captures



Image Print



Controls of Image colors



Screen Record



User Group Control



1-channel divided screen mode



4-channel divided screen mode



16 / 25 / 36 / 49 / 64 channel divided screen mode



Real time screen rotation function



User screen setting addition



Full screen mode chosen from a user screen setting



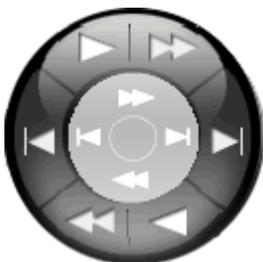
Full screen mode

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### Playback Control Button

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This buttons is used for the playback.

Forward Play / Reverse Play

Forward Single Frame Play / Reverse Single Frame Play

Fast Forward / Fast Rewind



- The speed control for the normal play ranges from 1/16X to 16X in 1-ch mode. (Units 1/16X, 1/8X, 1/4X, 1/2X, 1X, 2X, 4X, 8X, 16X)
- The speed control for the fast play ranges from 30X to 300X in 1-ch mode. (Units 30X, 60X, 90X, 120X...270X, 300X)
- The speed control for the single play ranges from 1X to 30X in 1-ch mode. (Units 1, 2, 3, 4, 5, ....., 28, 29, 30x)

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### PTZ Control Button

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Button for controlling Pan/Tilt

 Button for use in each adjustment mode

PAN: Left/Right

TILT: Up/Down

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### DATE & network transmission information

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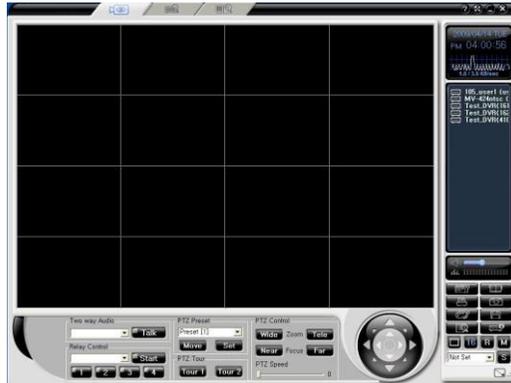
Displays the current PC date and time and total network transmission volume

## 1-4 Real-time monitoring

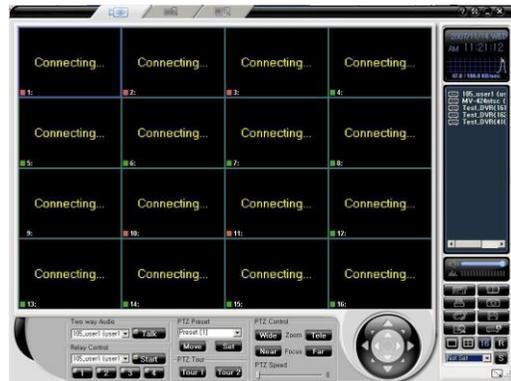
### 1) Viewing real-time images

#### (1) DVR unit real time monitoring

- ① For DVR unit real time monitoring, choose a DVR icon in the connection list on the right. Drag and drop it on the screen. Then screens will appear in sequence.



- ② Before connecting a screen, the messages of 'connecting,' 'no signal,' or 'screen disconnected,' will appear according to the camera's functional condition.



- ③ After screen connection, all channels of the DVR will appear on the screen.



(2) DVR camera unit view

① In screen setting by camera units, choose a camera from the connection list on the right. Drag and drop it, then you can see the screen of the camera



② To switch a channel, place the channel you want to choose. When there is a picture in the channel you chose, it will appear on the screen.



③ To stop pictures by a camera unit, take the channel out from the program by using drag and drop, and then the picture will stop.



## 2) Divided channel screen view

### (1) Divided screen view

	<p>After the picture of channels appears on the program screen more the divided mode button at the display mode button, then you can view the divided screen.</p>
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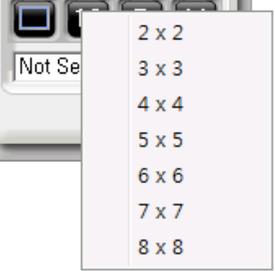
### Example) 4-channel divided screen mode

#### ① 1 channel mode




 A user can appoint and use a channel mode at the screen layout in 6, 8, 10, 13 channel mode. Consult screen layout function for more details.

### (2) C x C Divided Screen View

	<p>C x C divided screen supports 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, and 8x8 screen mode. For divided screen mode setting, click the right button on CxC button, then a popup menu will appear as you see in the left picture. Click the channel mode you want to choose with the left button of your mouse.</p>
<p><b>Example) 4/9/16/25/36/49/64 divided mode choice</b></p>	

① 4 channel mode



② 9 channel mode



③ 16 channel mode



④ 25 channel mode



⑤ 36 channel mode



⑥ 49 channel mode



⑦ 64 channel mode



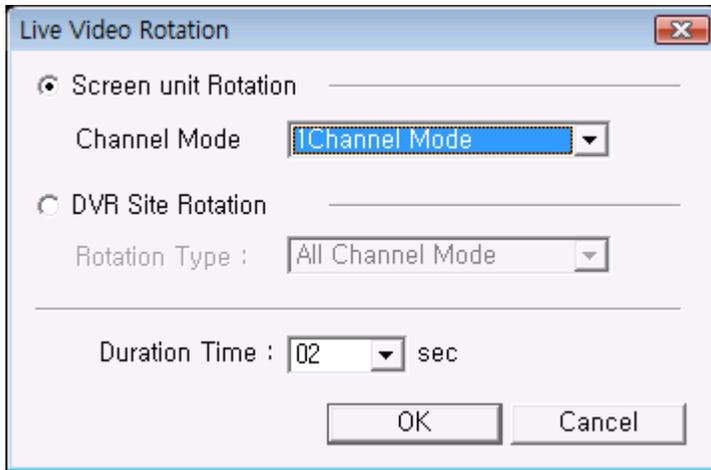
📖 If you want to view one channel view in a divided mode, Double click the channel Screen. If you want to view the previous divided mode, double click the screen. Time/ date/ channel information do not appear form 36 channel mode.

### 3) Remote control real time monitoring rotation function

#### 1. Screen unit rotation

	<p>There are screen unit and DVR unit in the rotation function. The Screen unit is to rotate the picture you watch at the moment; the DVR unit is to rotate all the real time pictures connected currently.</p>
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① If you choose the rotation R button, there appears a setting window as below, choose the above rotation R button and set a channel mode and rotation time you want.

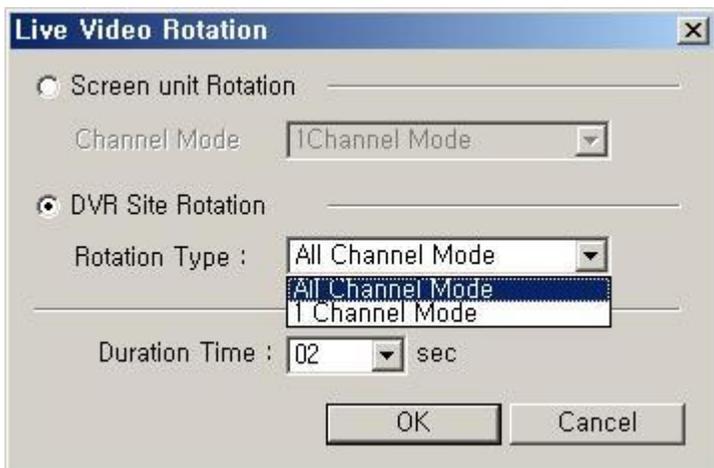


② The screen will rotate according to the chosen channel mode and time. If you want to stop the rotation, click the rotation R button.



**(2) DVR unit rotation**

① Choose the rotation R button; a setting window will appear as below. Choose the rotation R button and set a channel mode and rotation time as you want.



② When a rotation starts, the chosen DVR cameras will rotate while changing their channel modes. If there are 4 cameras in a DVR, it will rotate in 4 channel modes. If you want to stop the rotation, choose the rotation R button again.



### 3) Screen magnification / Contraction function

#### (1) Screen magnification / contraction function

- ① In 1 channel mode, click the right button of the mouse. A pop-up menu will appear. Magnification and contraction range from 100 % - 1600 %. (100, 150, 200, 300, 500, 700, 1000, 1600 %)



- ② When you choose a magnification rate on the pop-up menu, there appears a PIP screen on the right bottom of the screen. On the screen, there will be a picture screen and the magnified picture appears in the red box.



- ③ To move the magnified picture, move the red box in the PIP screen to a place you want to magnify.



- ④ You can magnify or contract the screen without going to the popup menu by using a mouse wheel and Ctrl key. In PIP mode, press the Ctrl key and move the mouse wheel upward for zoom in and downward for zoom out.



Zoom In



Zoom Out

#### 4) Controlling the PTZ

(1) Selecting the channel connected to a PTZ camera

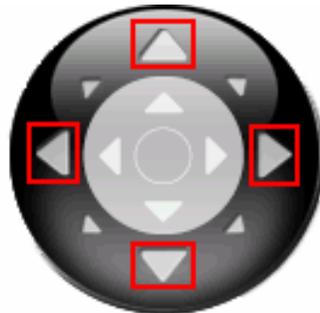
① Select the PTZ camera displayed on the screen as shown in the figure below



(2) Adjusting the Pan / Tilt

selecting the channel connected to a PTZ camera

① Select the channel where the PTZ is connected and use the arrow buttons to adjust the Pan/Tilt



(3) Adjusting Zoom in/ Zoom out

① After selecting the channel where a PTZ camera is connected, adjust by clicking the Wide/Tele button controlling Zoom in the PTZ control group.



Zoom Out



Zoom In



(4) Adjusting the Focus

- ① After selecting the channel where a PTZ camera is connected, adjust by clicking the Near/Far controlling the Focus in the PTZ control group.



(5) Controlling the Preset

- ① After selecting the channel where a PTZ camera is connected, the PTZ Preset position and number can be set up and moved using the Move/Register button in the PTZ Preset group.



Select a PTZ Preset No.



Move the screen position to the selected preset number position



Save the current position in the selected preset number.

(6) Adjusting the Speed

- ① After selecting the channel where a PTZ camera is connected, speed can be controlled using the PTZ speed slide bar in the PTZ control group.



Adjust the speed of movement between 0 ~ Maximum Value



(7) Controlling the Tour

- ① After selecting the channel where a PTZ camera is connected, Select Tour 1 or Tour 2 to run PTZ.



Run PTZ Tour1



Run PTZ Tour2

## 5) Controlling the Two way Audio

The Two-way Audio function will play the voice data that was input using a microphone or an audio input device by the user in CMS and sent to the DVR, in the DVR system

(1) Selecting a DVR in the connected DVR list



(2) Pressing the Talk button and inputting speech



(3) Pressing the Talk button again disabling the feature



(4) After 2 minutes, the Two-way Audio function will be stopped automatically.

(5) If another user uses the Two-way Audio function first, the following message will be displayed. This function can be used when that user is done.



(6) If the Playback mode is being used in the DVR system, the following message will be displayed. The DVR may be used when the Playback mode has ended.



(7) While the Two-way Audio function is being used, if the Playback mode is used in the DVR system, the following message will be displayed and the Two-way Audio function will be stopped.



### 6) Controlling the Relay Out

The Relay Out function will turn On/Off the devices connected to Relay Out. The number of Relay Out supported is different for each model.

(1) Selecting a DVR from the connected DVR list



(2) Indicating the Relay Out state for the DVR system



(3) Using the Start button to set up On/Off for Relay Out



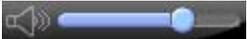
(4) If another user is already using Relay Out, the following message will be displayed when the Start button is pressed. Relay Out may be used when that player is done



## 7) Controlling the audio

If the audio record is set, you can listen to the audio set to each channel in real-time as in the following figure.

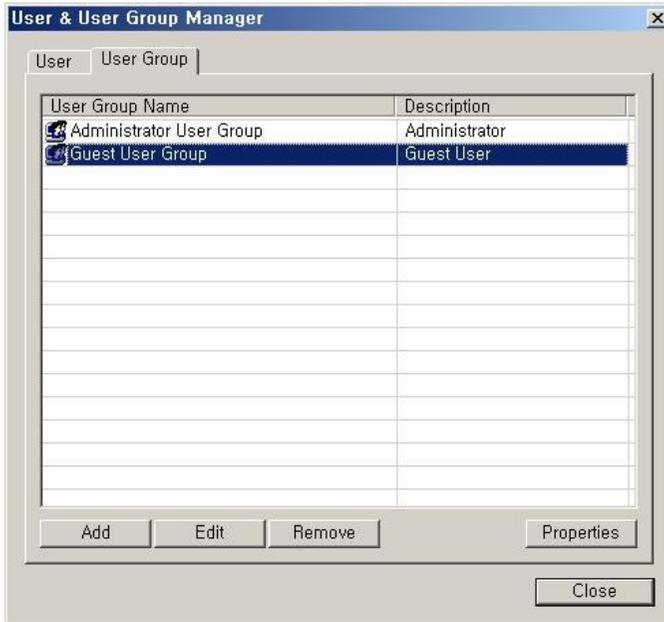


- (1) Executing live monitoring by selecting the DVR icon or the camera icon causes the channels where audio is connected to display an audio icon on the lower right part. Playback will then be carried out automatically starting with the audio connected to channels with lower playback order number.
- (2) To change the audio channel, click the channel displaying the  icon. The icon will then change to , and the audio for the corresponding channel will be played.
- (3) Drag the  button to control the audio volume.
- (4) Selecting the  button activates the noise cancellation. To terminate the noise cancellation, select the button again or move the volume adjustment bar.

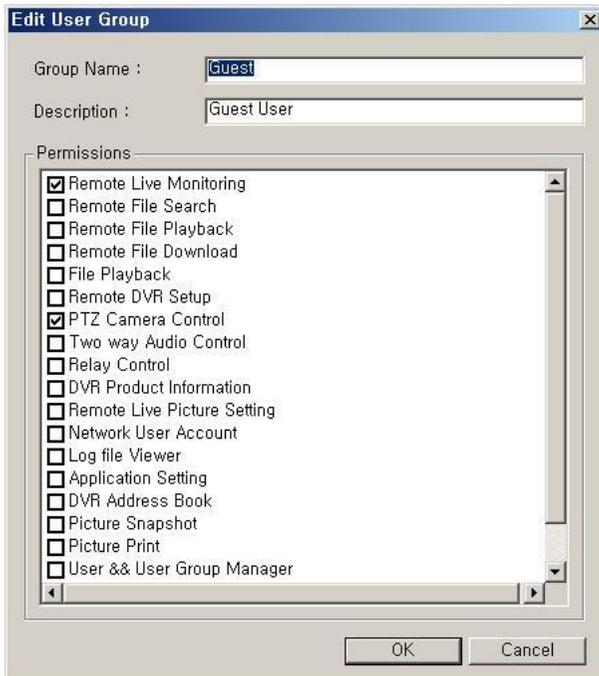


## (2) User Group Editing

① Click [Edit] button to edit User & User Group Manager as shown in the figure below.



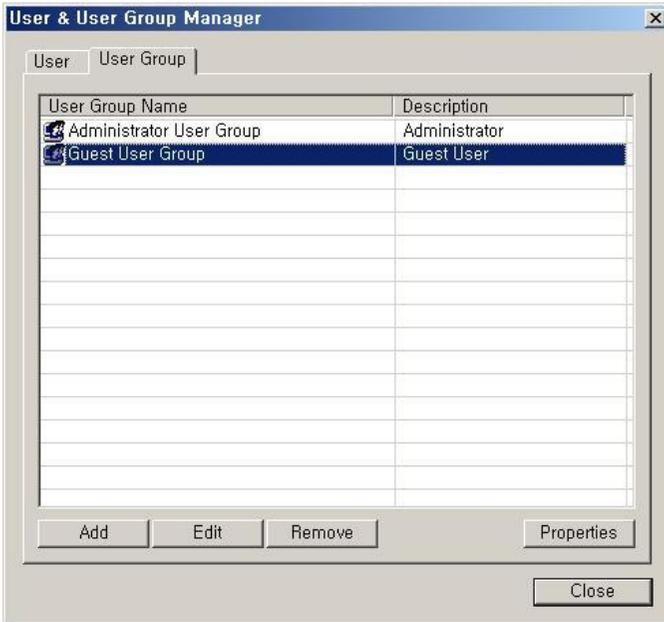
② Edit Group Name, Description and Permissions



 Administrator User Group cannot be edited and deleted. It has all authority.

### (3) User Group Delete

- 1 Click [Remove] button to delete User Group as shown in the figure below.

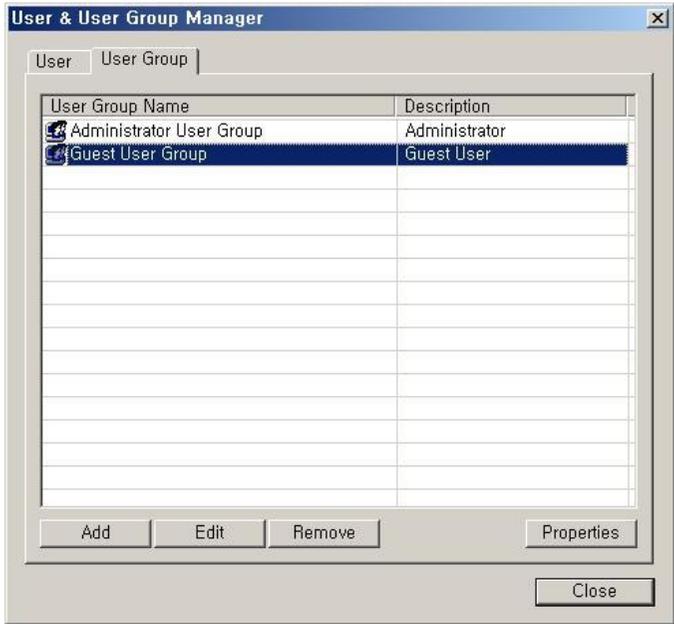


- 2 User Group is deleted

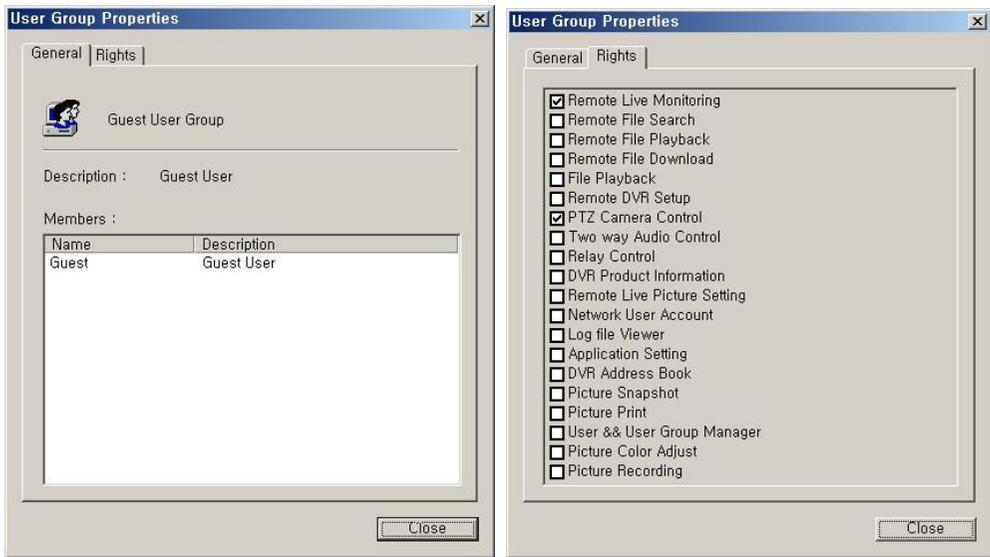


(4) User Group Property

① Click [Properties] button for the user group property.



② The User Group Properties appears



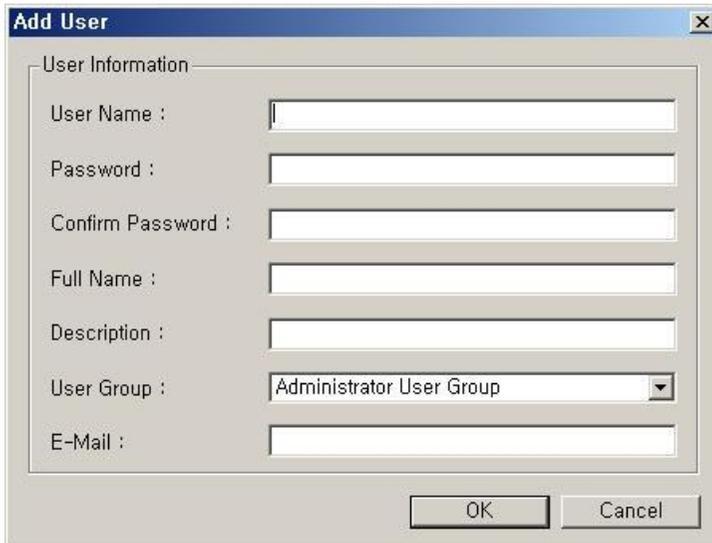
## 2) User Administrator

### (1) Add User

- ① Click [Add] button for the add User



- ② Enter the User Name, Password, Full name, Description, E-Mail.

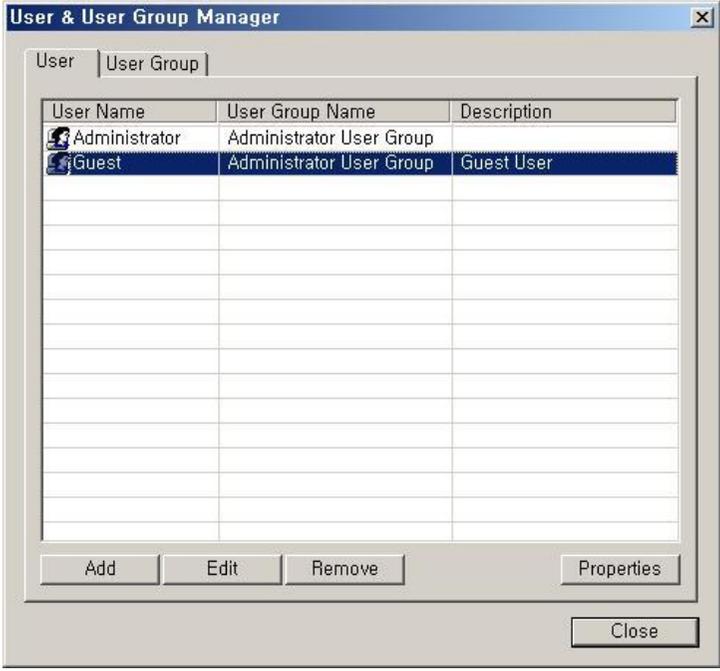


At the first installation, the initial access code of the Administrator is "1111111."

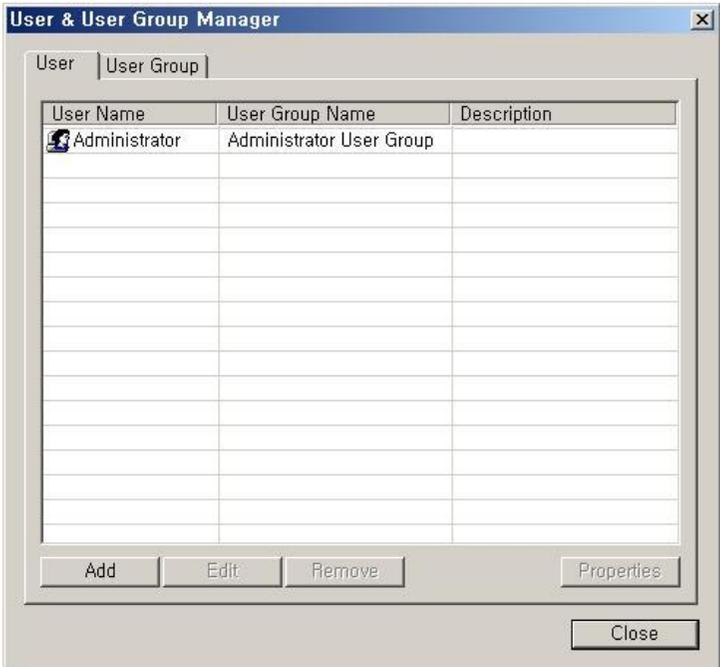


(3) User Group Delete

① Click [Remove] button to delete User Group as shown in the figure below.



② User Group is deleted





#### 4) User Log-in

1) Program Log-in

① Enter the user name and access code in the program



The screenshot shows a standard Windows-style dialog box titled "Login". On the left side, there is a small icon of a key. To the right of the icon, the text "User Name :" is followed by a dropdown menu containing the word "Administrator". Below this, the text "Password :" is followed by an empty text input field. At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

(Default Password: 1111111)

## 1-6. Automatic connection and address book administration

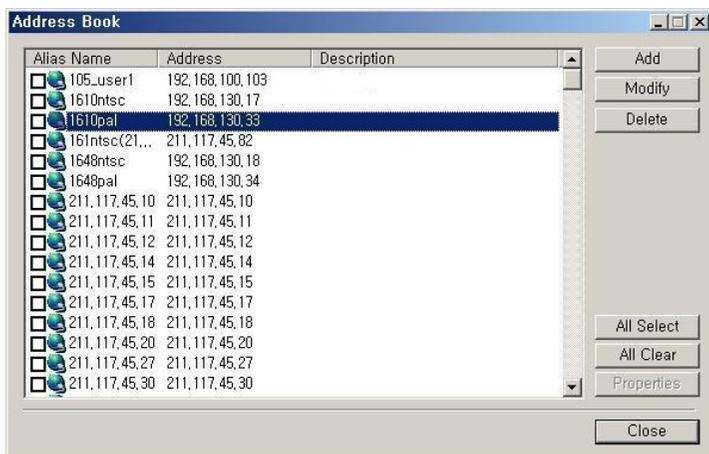


It adds, edits, and deletes the DVR system connection address. It also manages the DVR system lists to connect.

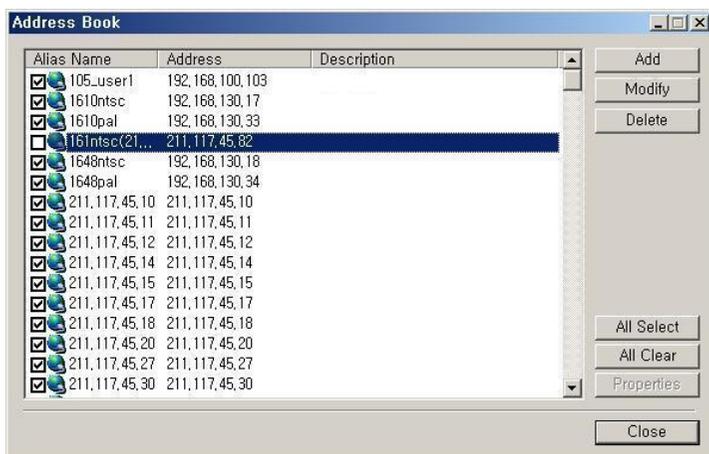
### 1) Automatic connection function

#### (1) Automatic connection registration

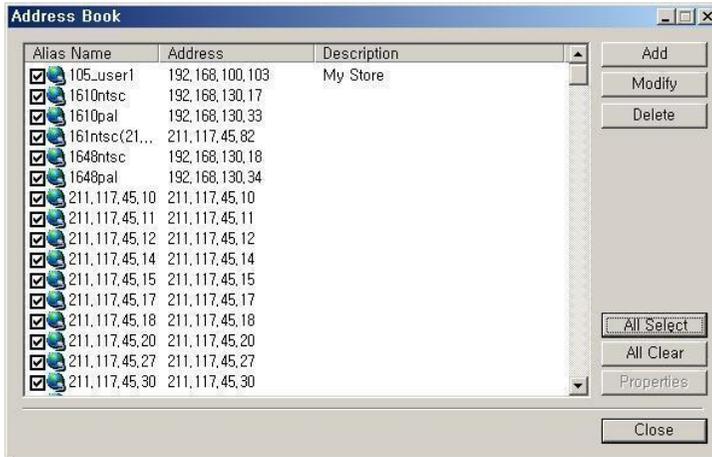
- ① For automatic connection registration, operate the address book and check the item you want to



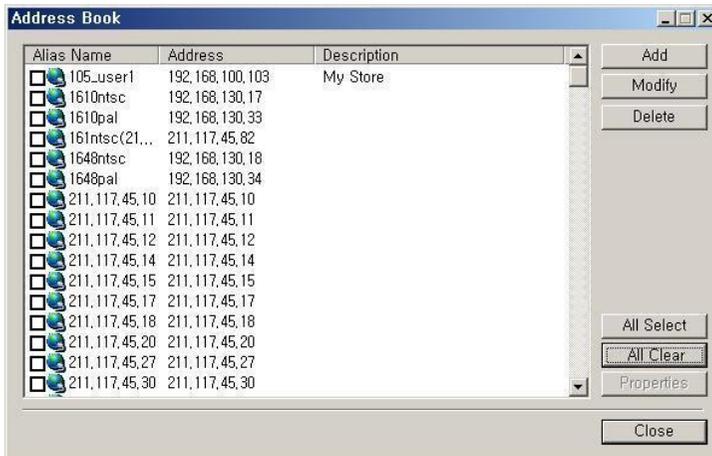
- ② To cancel the automatic connection, operate the address book and cancel the item you want to



③ To choose all of the address lists, press the select all button and select.



④ To cancel all the address lists, press the select all button and cancel

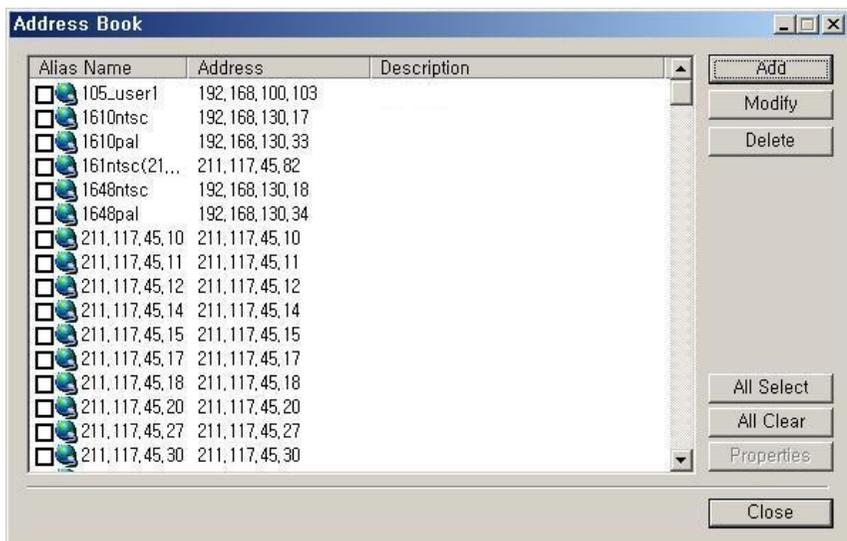


When the checked connection item is disconnected, the connected item does not disappear from the automatic disconnection list even if you cancel the item check from the address book. It does not appear if you reset the program.

## 1-7. Real-time monitoring the address book site administration

### 1) Add an address

① Choose the add button to add an address to the address book site.



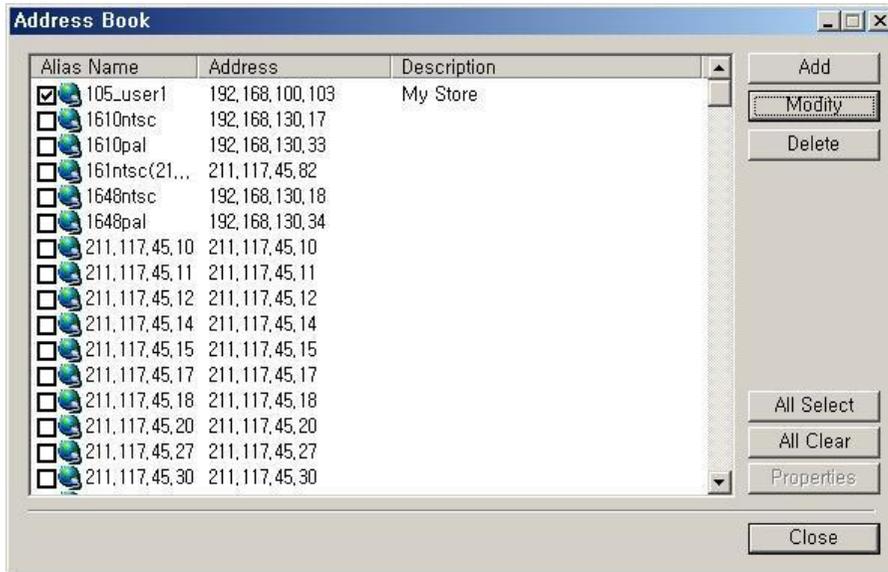
② Enter the user name, explanation, DVR information in the add window and press the confirm button.



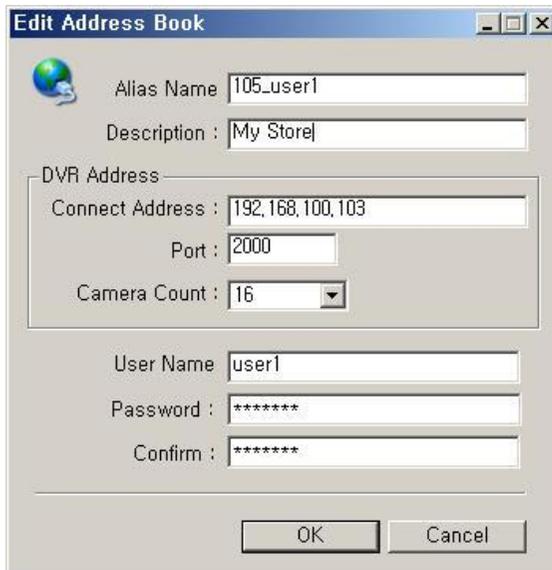
The added address is automatically chosen and connected when you close the address book

## 2) Modify the address book

① To amend the address book, choose the Modify button.



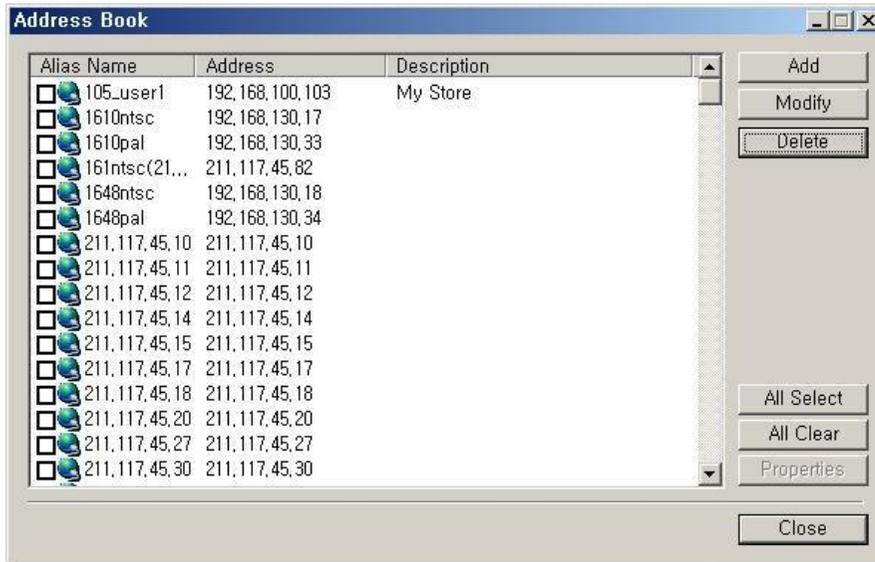
② Enter the user name, explanation, and DVR information to the added window, and choose the confirm button. Then a new address is added



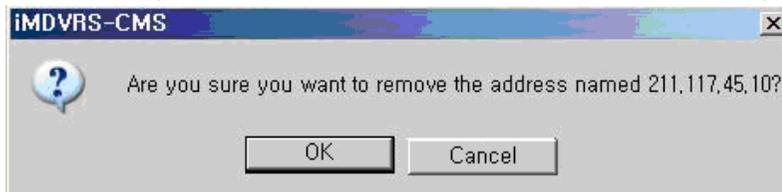
📖 When you want to change Information except the user name, press the confirm button, them they can be revised. When you change the user name, press the confirm button, then the address will be added.

(2) Delete the address site

- ① To delete the address site, choose the delete button.

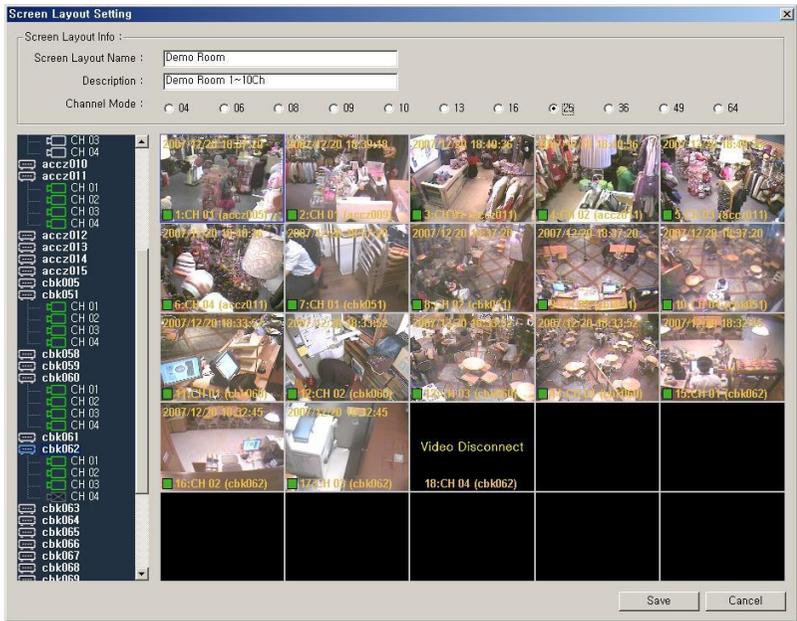


- ② When you choose the delete button, there appears a message box to confirm

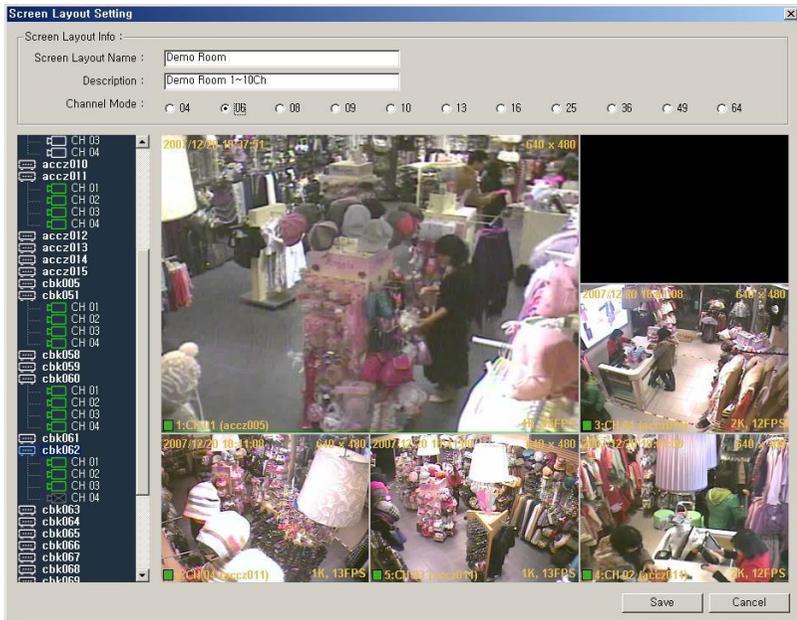




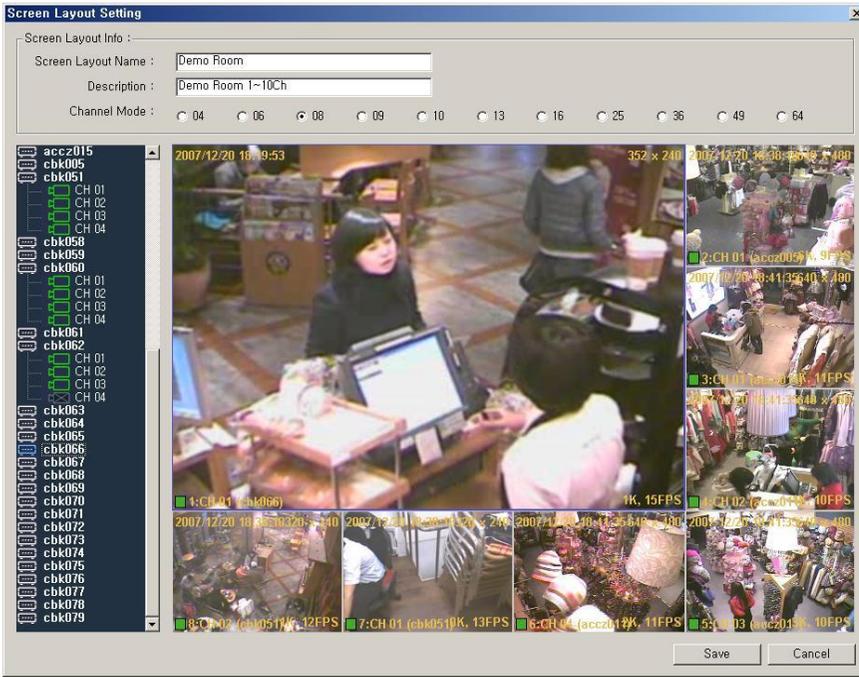
- ③ Choose a channel mode in the screen layout, and display channels the user wants. The way to display is the same as the drag and drop function of the camera and DVR icon in live mode. The channel move and delete are also the same.



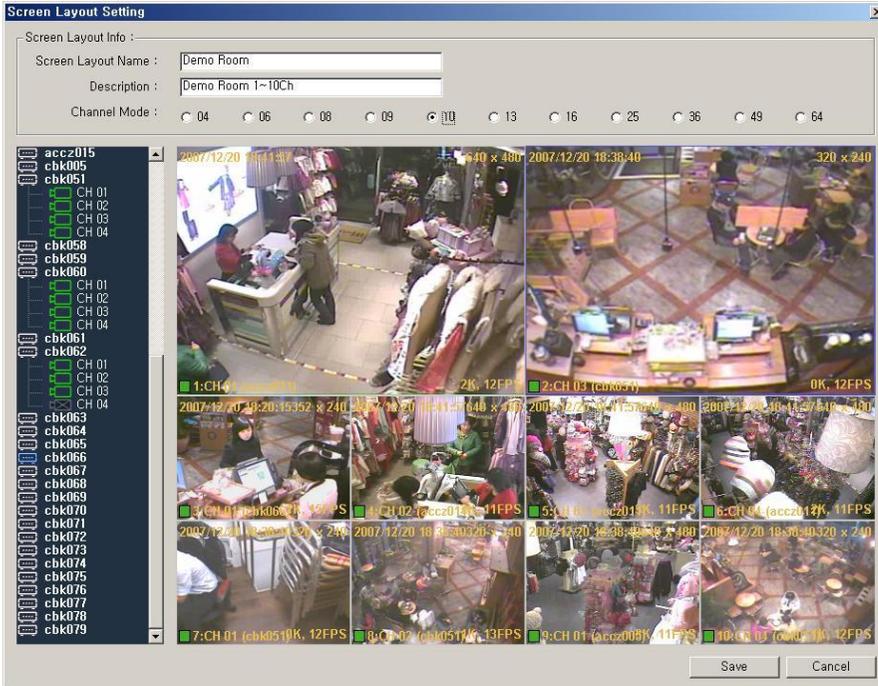
- ④ 6 channel mode choice in screen layout



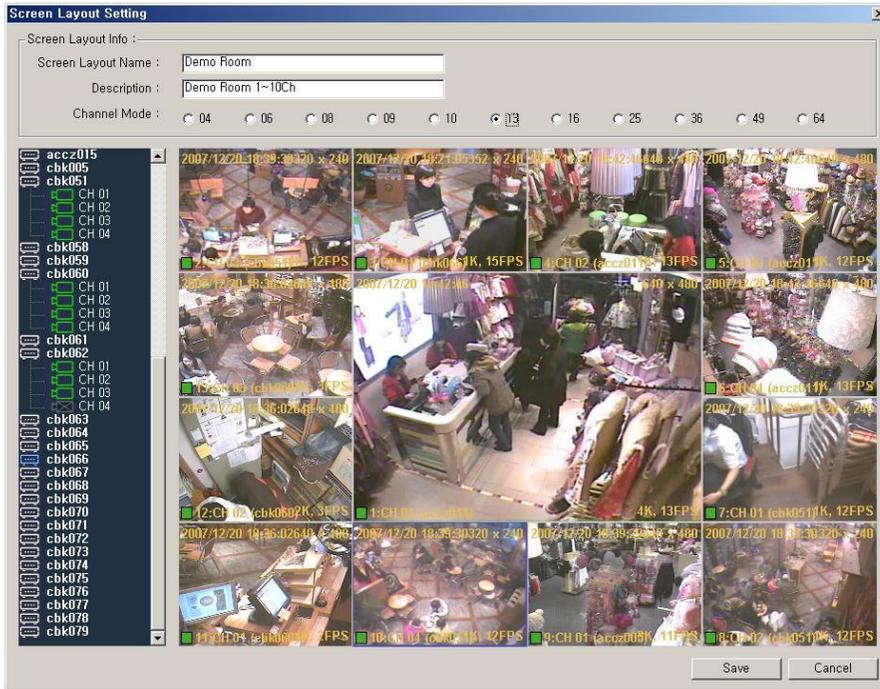
⑤ 8 channel mode choice in screen layout



⑥ 10 channel mode choice in screen layout

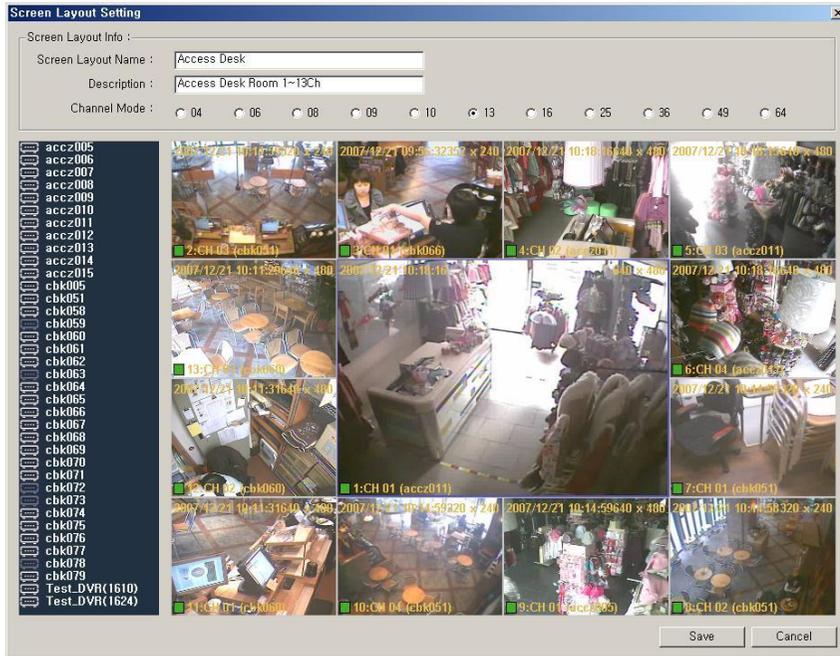


### ⑦13 channel mode choice in screen layout





- ③ Edit the screen layout name, explanation, channel mode and arrangement plan and press the save button.

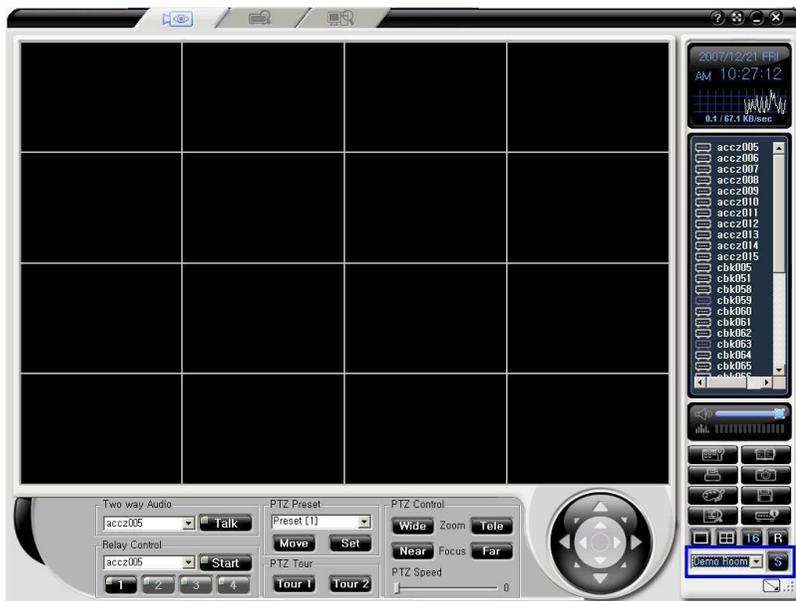




## 2) To use the screen layout

### (1) To use the screen layout in live mode

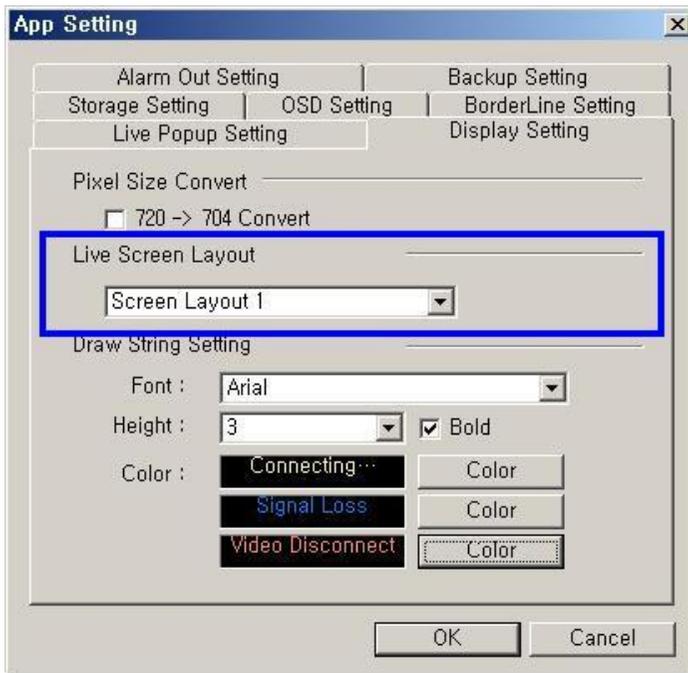
- ① Choose the screen layout from the right bottom screen layout list in the live mode, and then click the s button.



- ② When you choose a screen layout from the screen layout list, there appears a customized live screen as below.



③ When you start a program, you can set the customized screen layout to be operated automatically. If the user chooses the screen layout he wants from the live screen layout as below, the program starts with the chosen screen layout.

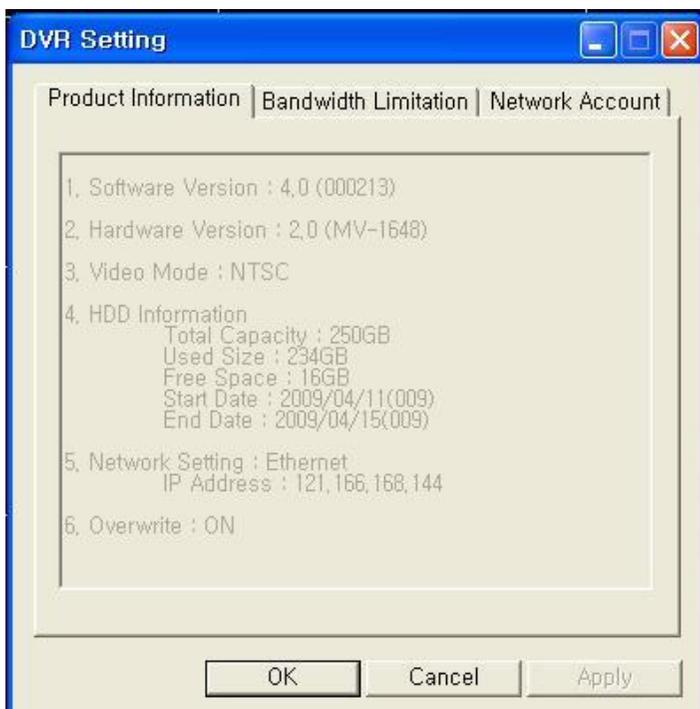


## 1-9. DVR information setting

① In order to use the product information view, select the DVR site name on right of the program screen and click the right of the mouse button. Select the product information on the popup menu.



② When you select the product information tab in the popup window, there appears the product information as below.



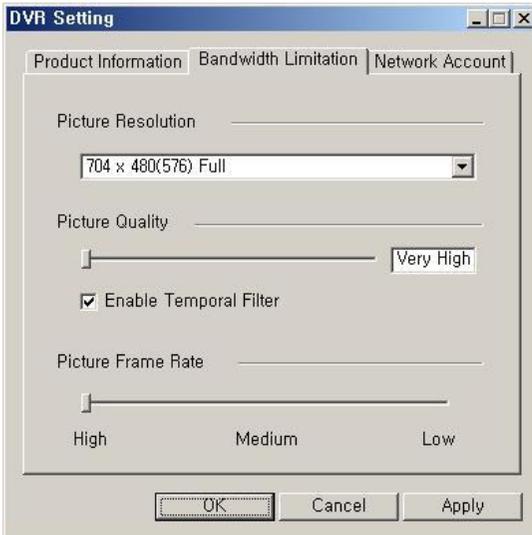
1. S/W version  
(Build Number)
2. H/W version  
(Model Name)
3. Video Mode
4. HDD Information
  - Total Capacity
  - Used Size
  - Free Space
  - Start Date
  - End Date
5. Network Setting
6. Overwrite On/Off

## 1) Bandwidth Limitation Function

① To use the support for throttling function, choose the DVR site name on the right of the program screen and click the right of the mouse button. Select the support for throttling function on the popup menu.



② When you select the support for throttling tab in the popup window, there appears the support for throttling as you see in the picture below.



### \* Image resolution

It regulates the screen resolution. The lower the resolution, the faster the transmission speed.

(CIF > Field > Full )

### \* Image quality

It regulates screen quality. High image

Quality lowers compressibility and decreases speed. Poor image quality increases compressibility and speed

### \*Temporal filter application

When there are lots of static in the screen, it removes static, reduces unnecessary pictures, and increases the transmission speed

### \* Image transmission

#### speed

Screen transmission frame numbers Regulated. On the basis of 3 D fram the following values are approximate set. High: 30, Medium: 15 Low: 7.5

 Attention: Support for throttling function cannot be used in MV series DVR.

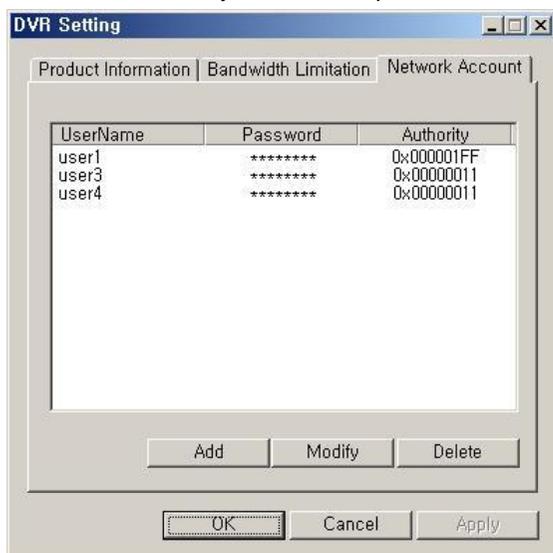
## 2) Network account management function

### (1) Network account

① To use the network account management function, select the DVR site name on the right of the program screen and click the right button of the mouse. Select the network account manager on the popup menu.

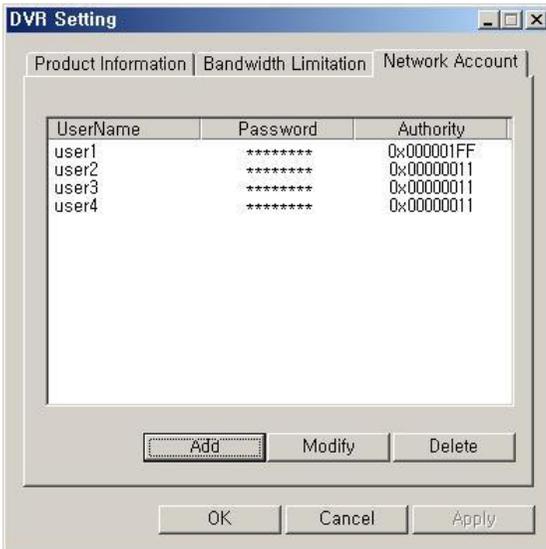


② When you select the network account tab in the popup window, there appears the network account as you see in the picture below



(2) To add a network account

① To add a network account, press the add button



② To add a network account, set user name, access code, and user authority and press the confirm button.

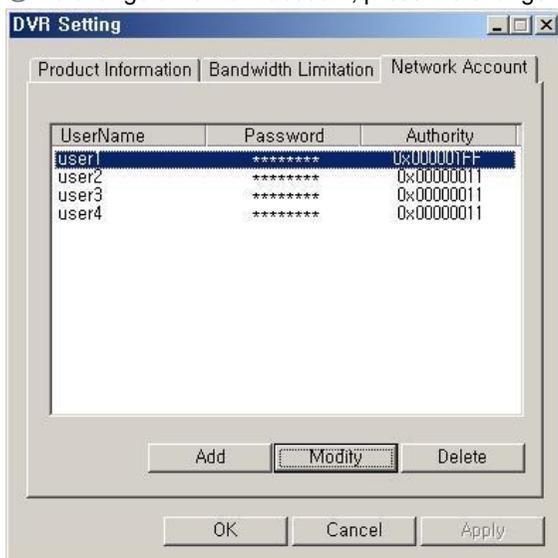


③ When added successfully, there appears a message like below.



(3) To change Network accounts

① To change a network account, press the change button.



② Change network accounts, such as user name, access code, and user authority and press the confirm button.

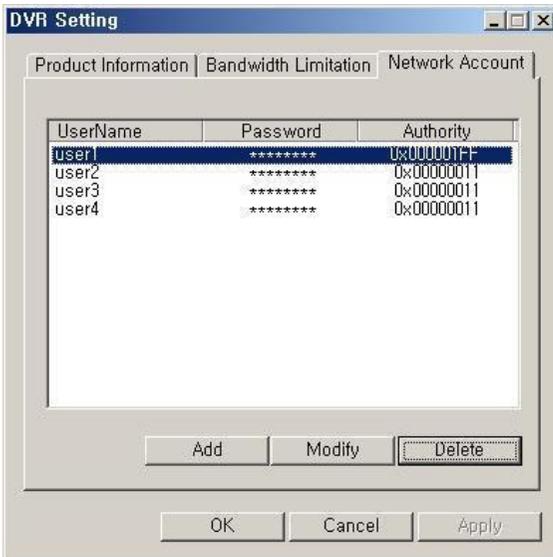


③ When changed successfully, there appears a message like below.



(4) To delete network accounts

① To delete network accounts, select the item you want to delete and press the delete button.



② When deleted successfully, there appears a message like below.



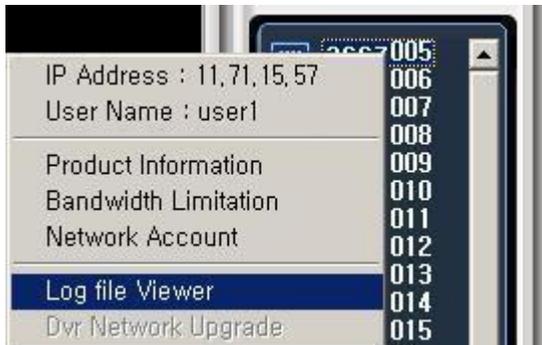
📖 You can add / change / delete network accounts only with administrator privileg administrator privileges, there appears a message like below.



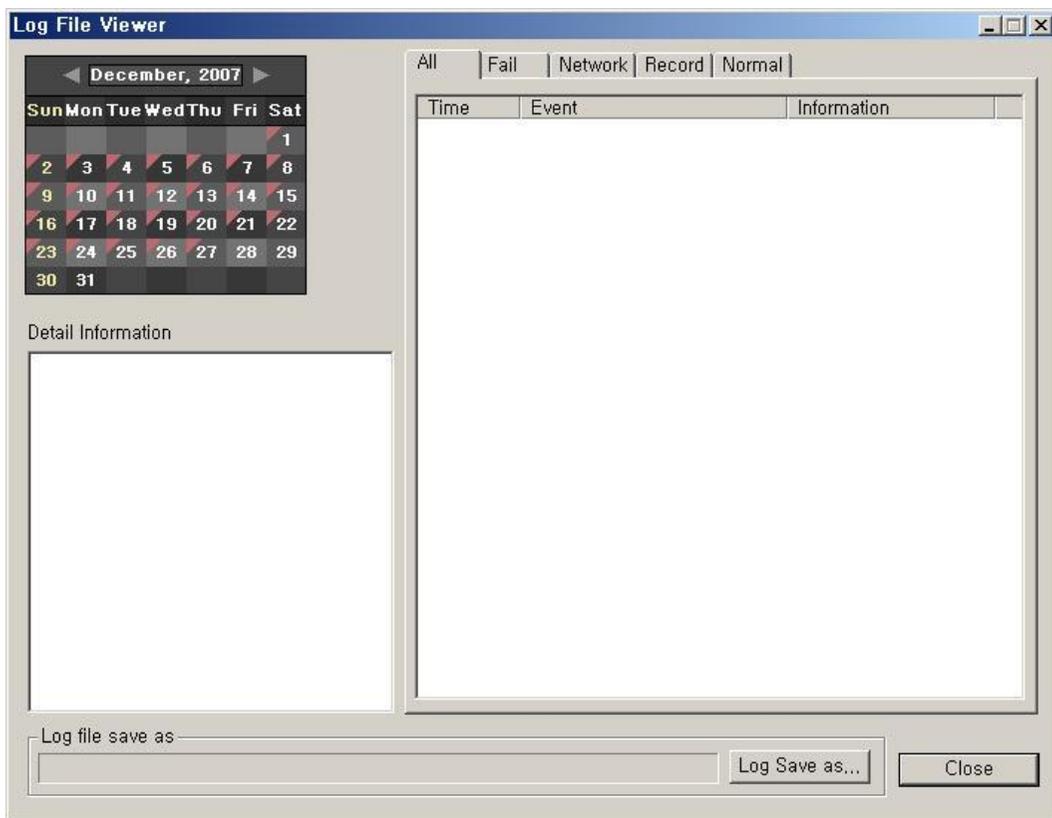
### 3) DVR Log File Viewer function

(1) To start Log file Viewer

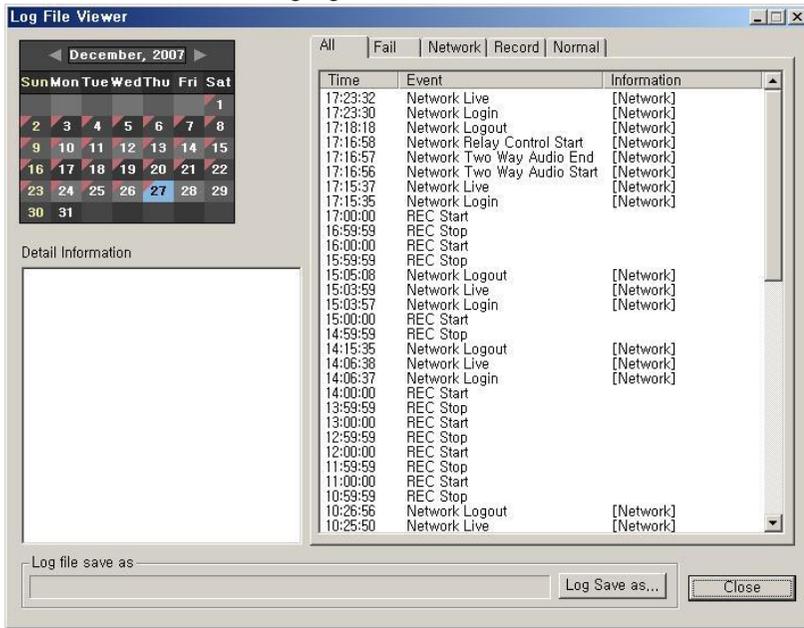
① Move the Cursor to DVR Alias Name or IP connected to the DVR connection tap on the right side of the program screen, and click the left button of the mouse.



② Click the Log file viewer in the popup window, then there appears the log information window like below.



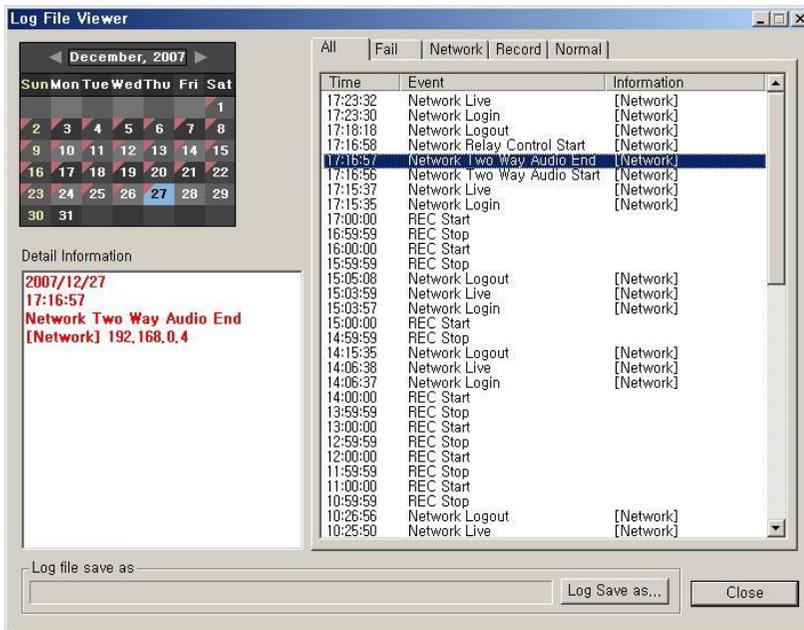
③ Click the date for viewing log on the calendar left.



(2) To view the whole log

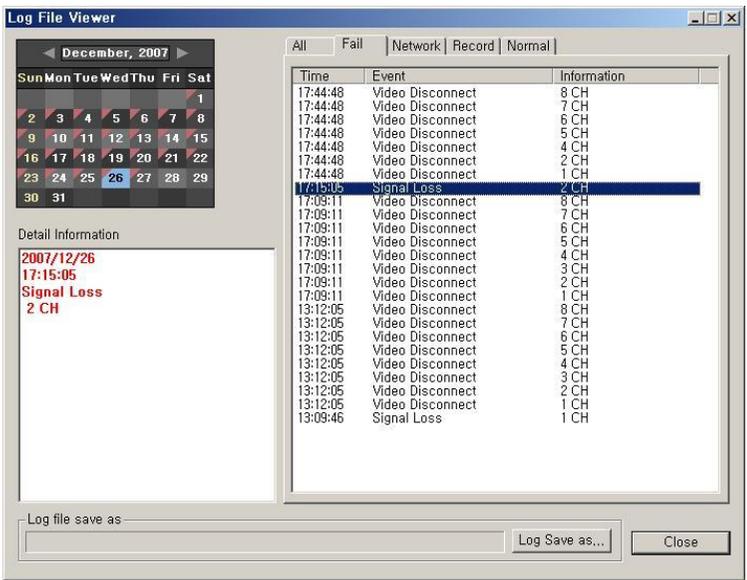
① Select the [all] tap on the log information window right. There appears all the log information lists.

② Click an event at a specific time, you can view detailed log information on the detailed information window left.



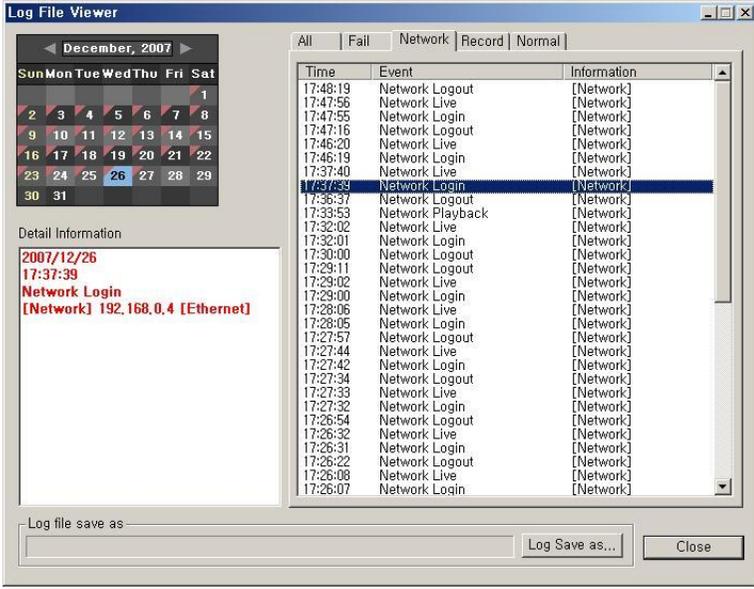
**(3) Fail Log view**

- ① Select the [Fail] tab on the Log information window right, there appears the log information lists.
- ② Click an event at a specific time, you can view detailed log information on the detailed information window left.



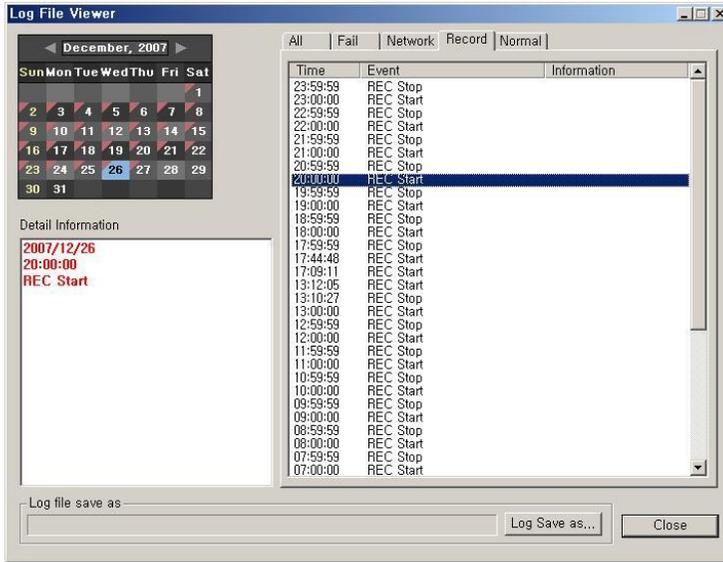
**(4) Network log view**

- ① Select the [network] tab on the Log information window right, there appears the log information lists. Click an event at a specific time, you can view detailed log information on the detailed information window left.



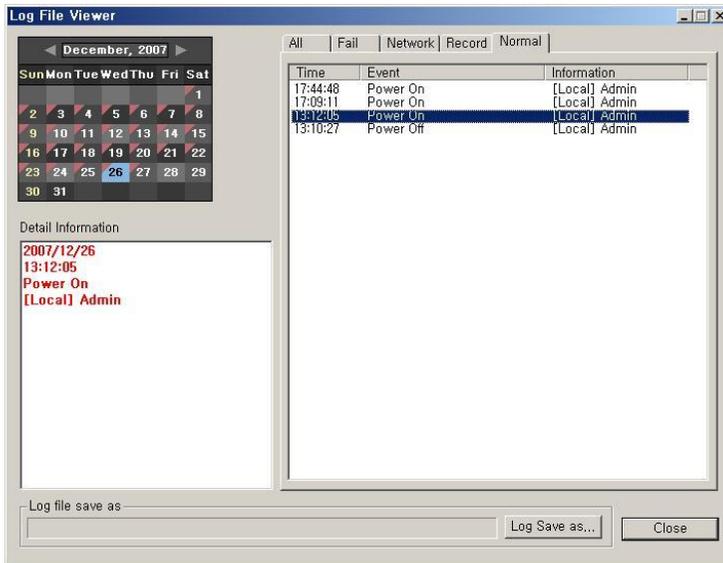
(5) Record log view

- ① Select the [Record] tab on the Log information window right, there appears the Record log information lists.
- ② Click an event at a specific time, you can view detailed log information on the detailed information window left.



(6) Normal log view

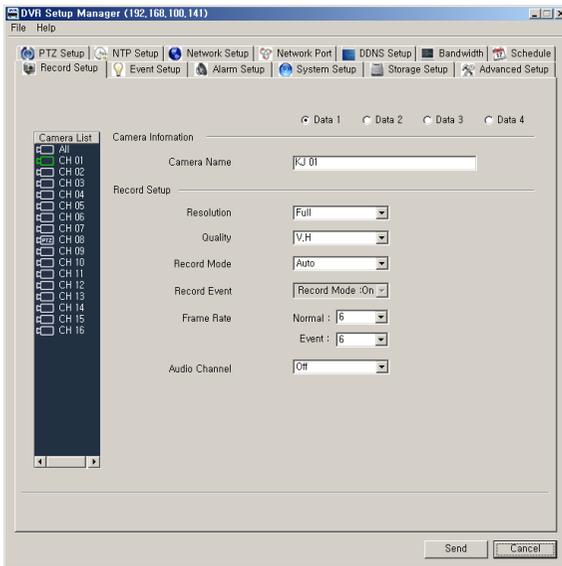
- ① Select the [Normal] tab on the Log information window right, there appears the normal log information lists.
- ② Click an event at a specific time, you can view detailed log information on the detailed information window left.



## 1-10. DVR Setup Manager

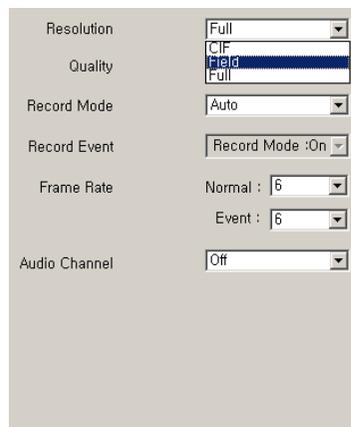
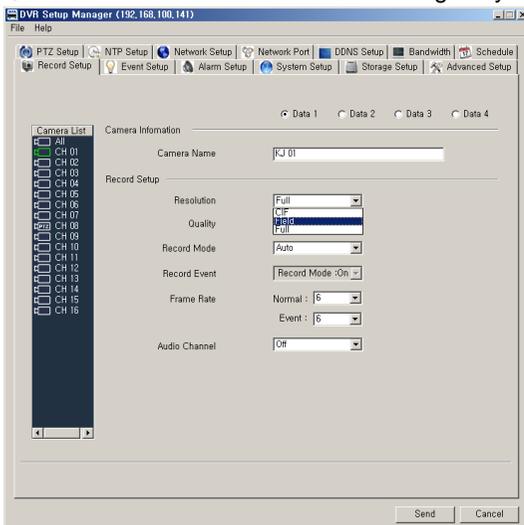
### 1) DVR Setup Manager start

- ① Select any DVR from the list.
- ② Select DVR Setup Manger by clicking a mouse right side button.

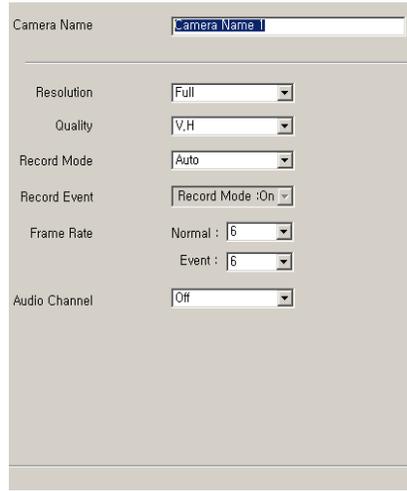
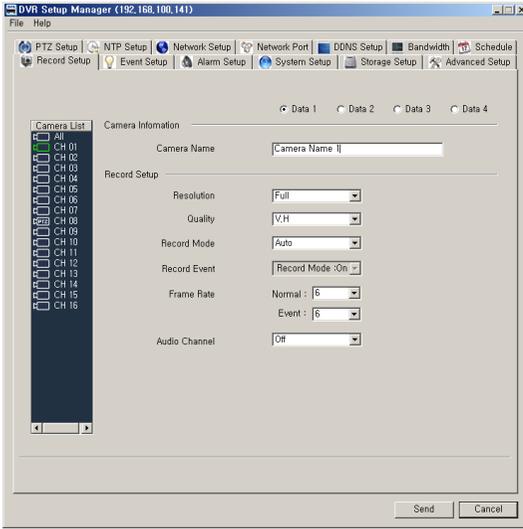


### (2) DVR Main/App Setup

- ① Select cameras from the list and change any setting data.

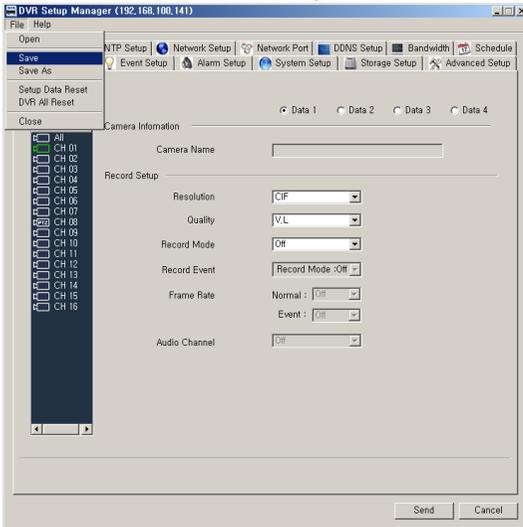


② You may need to type names below.

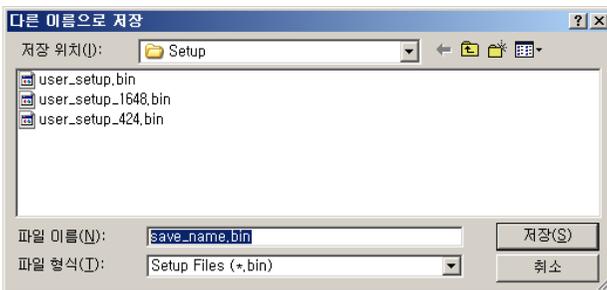


3) Save (Save as)

① You can save the data to go "File > Save (Save as)" from the menu.

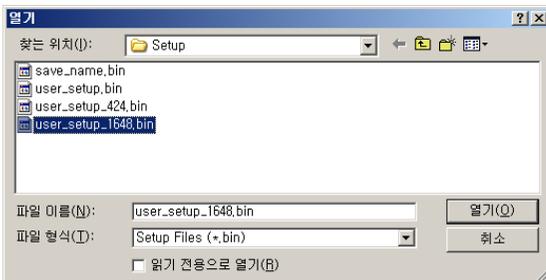
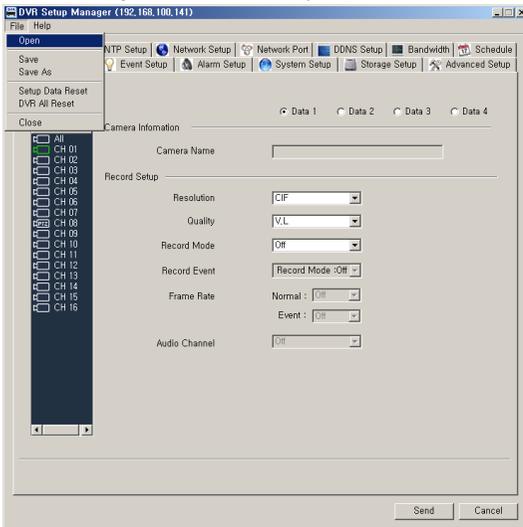


② Data will be saved at default location in "Save" mode and you may select file name and location for "Save as".



#### 4) Open

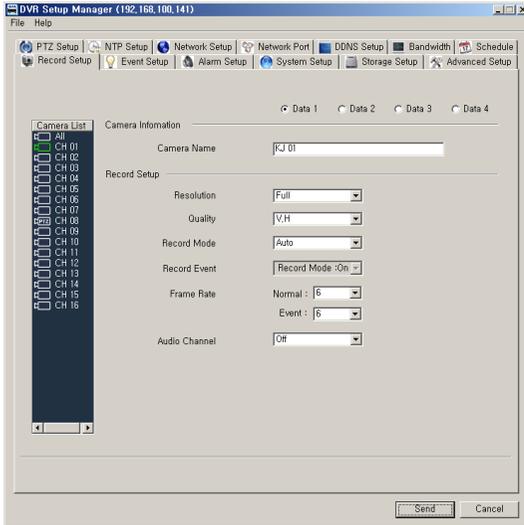
① You may recall DVR setup data from the menu(File > Open).



By clicking “Send” button, data will be transferred to DVR.

## 5) Send

- ① By clicking "SEND" button, all the setting data will be transferred to DVR.

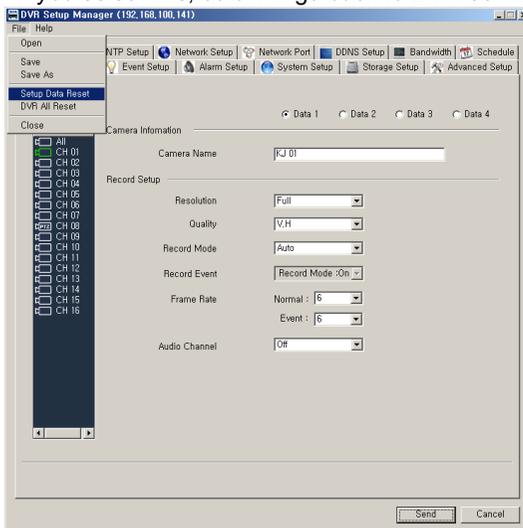


- ② Following window will be popped up and network will be disconnected.



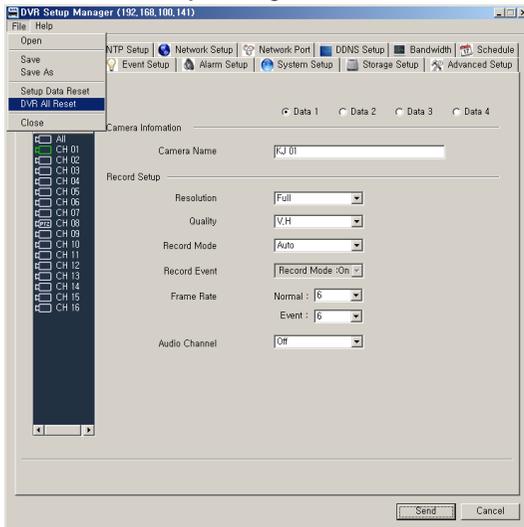
## 6) Setup data reset

- ① If you select this, data will go back to DVR setting data.



## 7) DVR All Reset

- ① This is a "Factory Setting" menu.



- ② Beep sound will be on during factory setting.

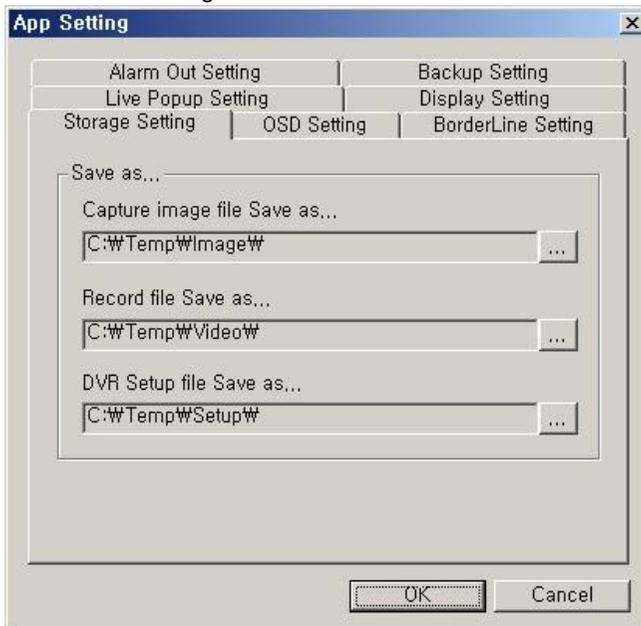
## 1-11. Environments Setup



- \* You can use the following function in the environment setting.
  - capture image, record file download, and specification of the path for saved DVR setting file
  - \* specify OSD font, color, and size; set up information indication
  - \* Set the size, and color of border line; on/off setting
  - \* Set the number of the event live popup windows and event setting function
  - \* 720 -> 704 Pixel output function, screen layout unit setting function; color and font size setting of connecting, no signal, and screen disconnection
  - \* DVR alarm output setting function
  - \* Save and call the configuration value and the address book

### 1) Setting storage devices

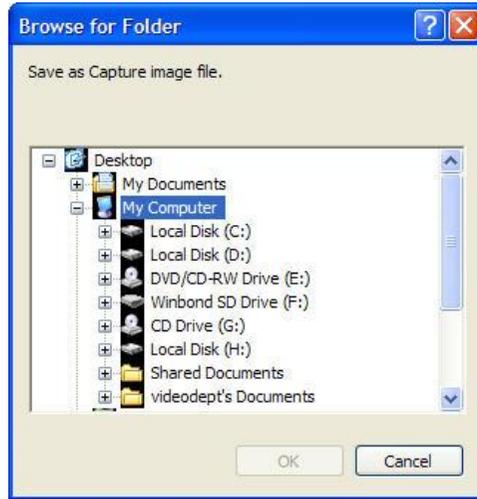
① Click the  button on the right of the program screen, then there appears the environment setting window as shown below.



- ② Setting storage devices – Click the path specification button on each storage path and specify storage paths.

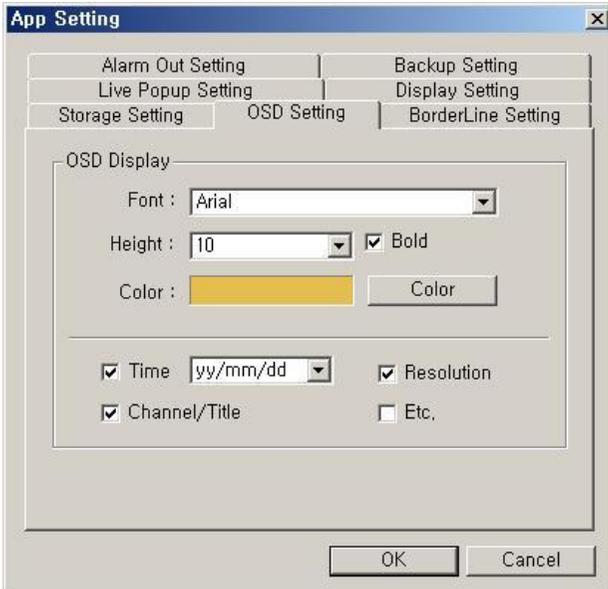
**\*Default Path**

<b>Image File</b>	C:\Temp\Image
<b>Download File</b>	C:\Temp\Video
<b>DVR Setting File</b>	C:\Temp\Setup



## 2) OSD Setup

- ① Select the OSD setting tab. Then you can specify the use of OSD, the size and color of the OSD font. You can also choose to use the on/off function of the OSD on the screen or not.



- ② Specify after choosing an OSD font from the list. Select an OSD size from the list, and decide whether you use a bold style or not.
- ③ Press the color button, then you can specify a color you want on the color specification window.
- ④ OSD letter setting applied.



- ⑤ Select the information visible or not on the picture screen.

### 3) The border line setting

① Select the border line setting tab; you can choose the use of the border line and color and thickness.

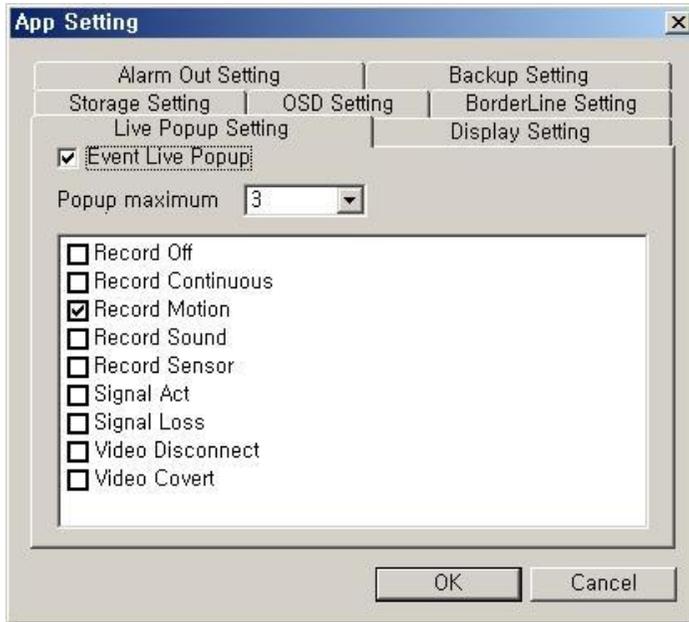


② The border line setting applied



#### 4) The Event line popup setting

① The event live popup function is to show the event real time live picture on the popup screen. The setting for this function is shown below.



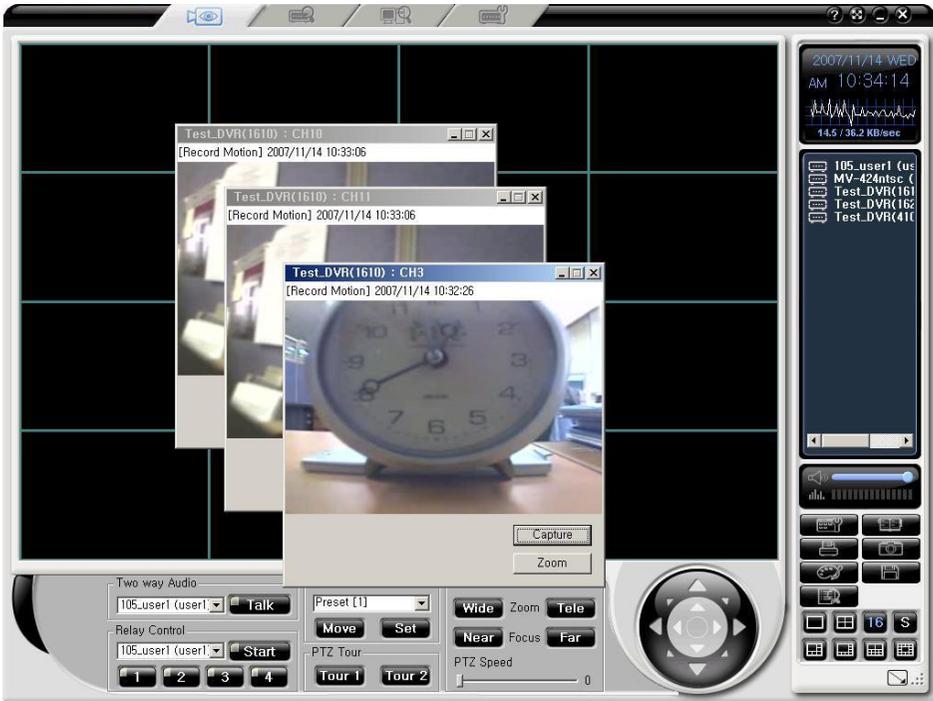
**1.**The Event line popup setting :

The event live popup function is to show the event real time live picture on the popup screen. The setting for this function is shown below.

**2.** The application of event live popup : Set the numbers of windows. When more windows than the specific are used, the popup windows which were first on the screen will disappear.

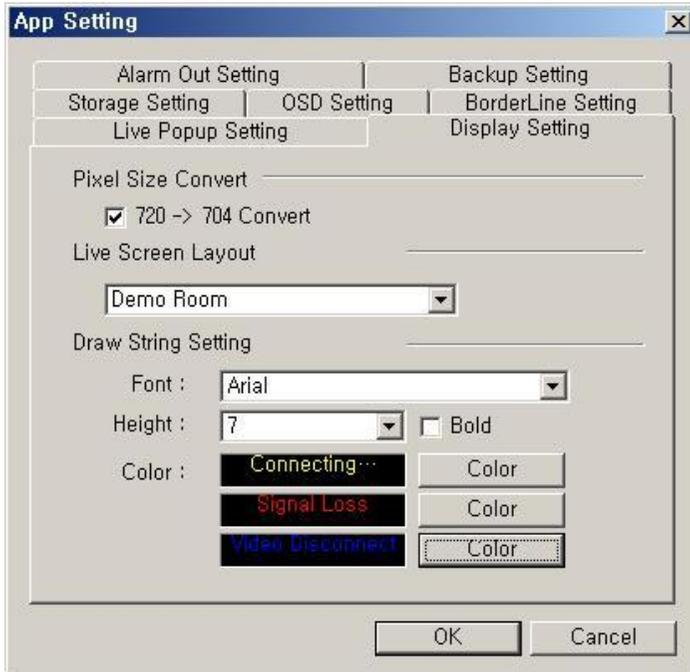
**3.** Event setting : setting events such as stop consecutive recording, movement recording, audio recording, sensor recording, signal, signal loss, and video disconnection.

② The date, time, and channel information of the current channel appear on the event live popup window, and the capture function and magnify/contract function are provided.



## 5) Screen setting

① Screen setting tab presents the screen output of program.



1. Pixel number and size convert :

a screen recorded in 720 pixel is converted to 740 pixel

2. Live screen layout :

The first screen is selected and produced automatically, after the network connection in the first drive of program

3. Draw string setting :

Connecting, signal loss, video disconnected, message font, height, bold, and color selecting function

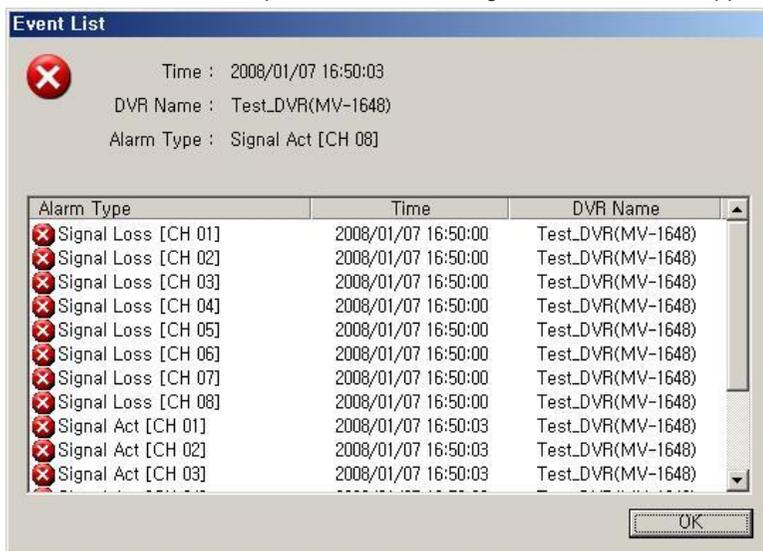
## 6) Alarm output setting

- ① When an event happens, an event message output and an alarm output repeatedly appear in the alarm output setting



1. Power shut off : Power close
2. DVR operation failure : backup failure, network link failure, no signal, pan operation failure, hardware failure, hard disk failure, codec failure, codec recover, signal connection, video connection cancellation, video hide, Hotswap add/delete, and hard disk danger
3. Sound effect : you can select the system beef sound and the wave file.
4. Sound duration time : Alarm sound can be selected per second.

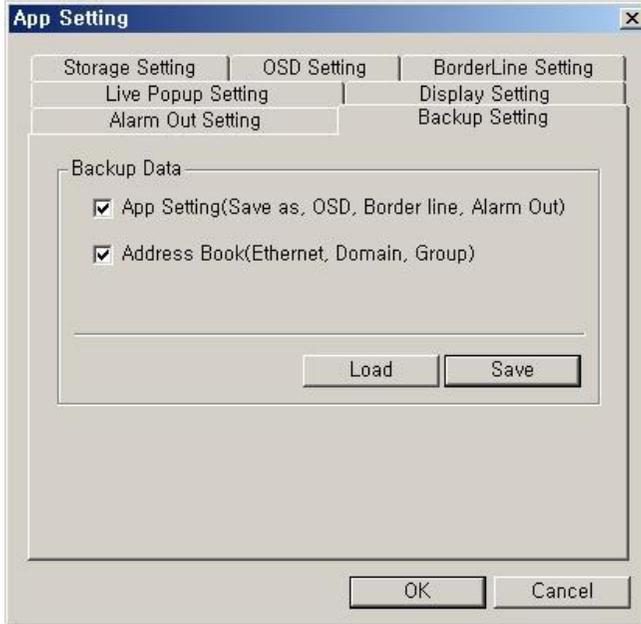
- ② The event list box outputs an event message, when an event happens.



When a log event the DVR system, there appears the event list windows as shown in the picture. There are time, and DVR name in the list. The sound effect is reproduced and continues until the user presses the confirm button.

## 7) Backup setting

① The backup setting tab saves all the data in backup files or applies saved backup files



It can save and recover environment setting values.

Summon – the saved information in files is applied to the current program.

Save- the current program information is saved in files.

## 1-12. Video Image capture

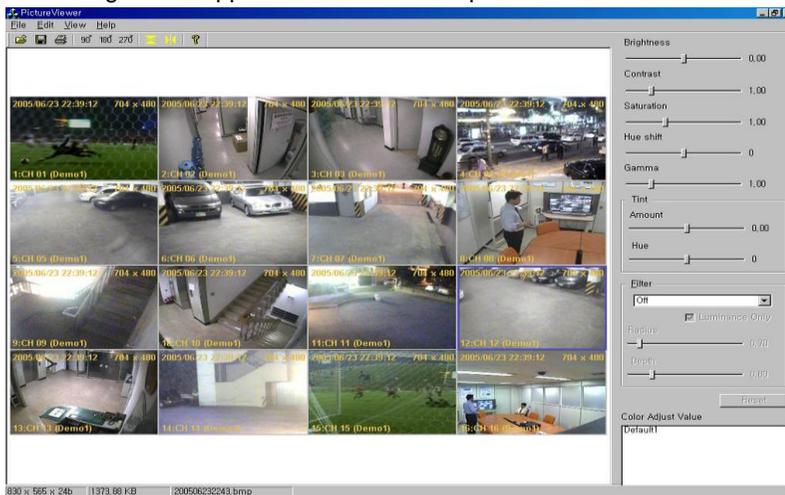


It captures the current monitoring screen and saves as picture images.

※ The captured images are saved in a path specified by the environment setup

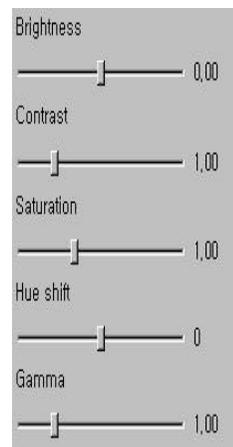
### 1) The current screen capture

① Press the  button on the right of the program. The picture captured by the current monitoring screen appears as shown in the picture below



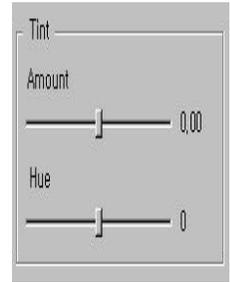
### 2) Brightness/ darkness/ saturation/ color/ gamma adjustment

Brightness/ darkness/ saturation/ color/ gamma values are adjusted by the movement of the slide bar in the right panel control box.



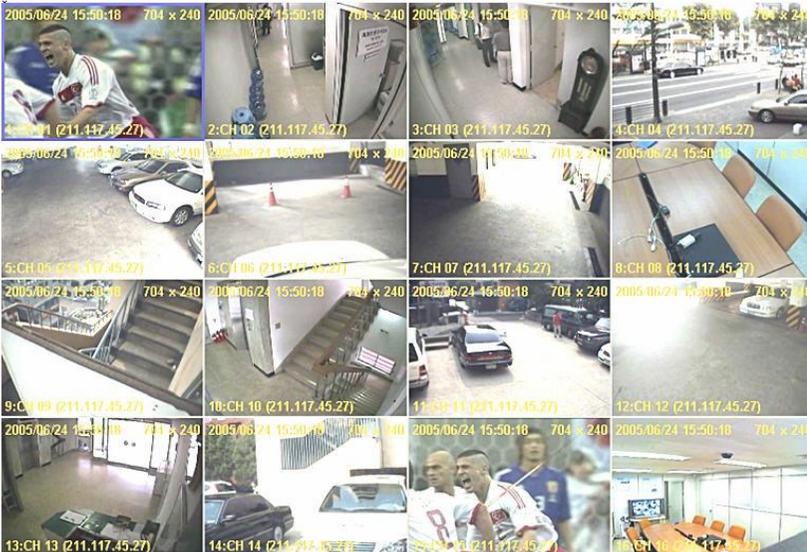
### 3) Color adjustment

- ① Color values are adjusted by moving the slide bar in the right panel amount and hue control box.



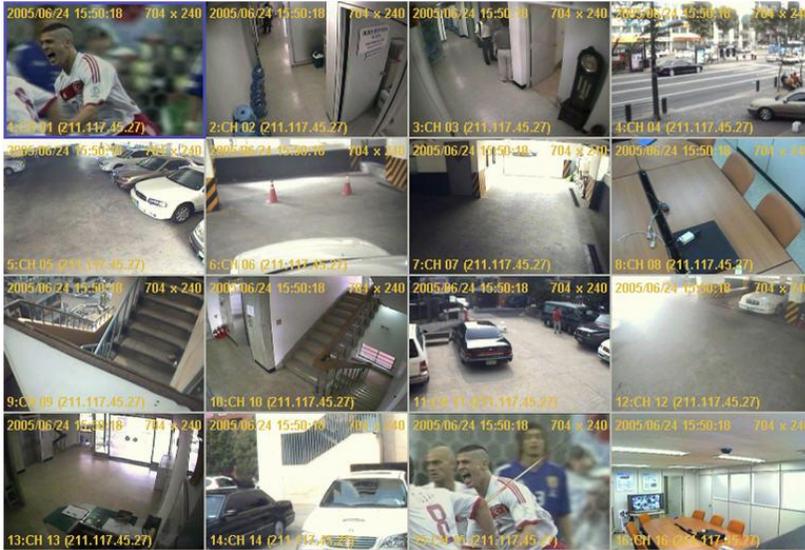
### 4) Filter application

- ① Filter values are adjusted by moving the slide bar in the right panel amount and hue control box.



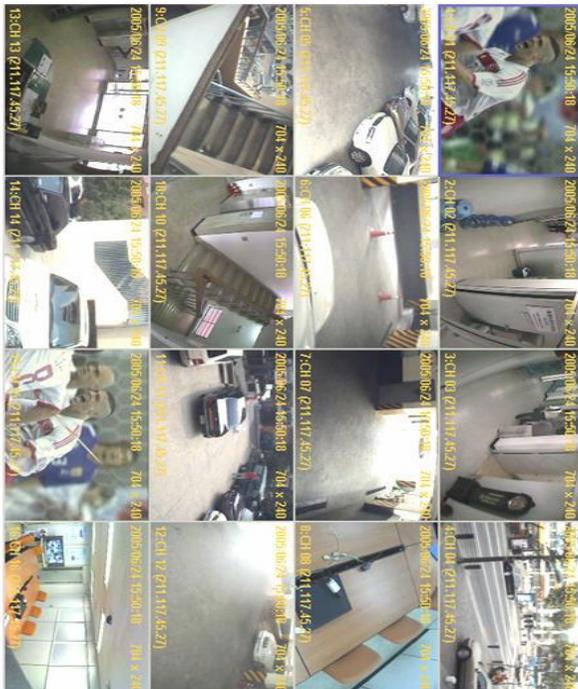
## 5) Original picture recover

① Click the [reset] button in the right panel. Then the original picture is recovered



## 6) Rotation

① Click an angle icon in the top icons. Then the picture rotates to the angle.



90° reversal





180° reversal



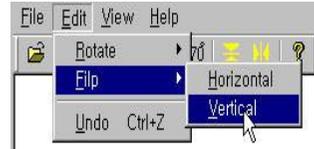
### 7) Left/right reversal

① Click the  icon in the top menu, or select [Edit] -> [Flip] -> [Horizontal].



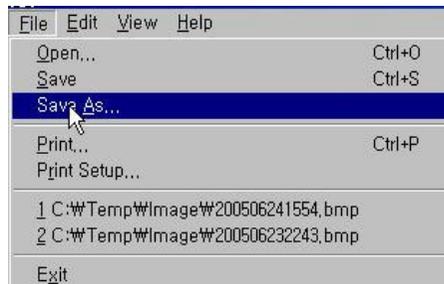
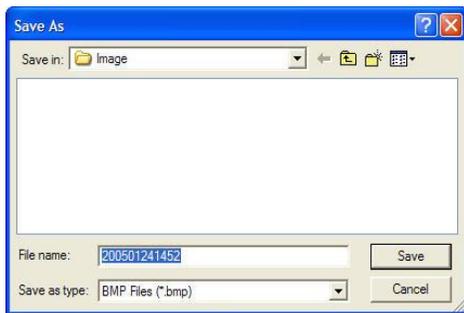
### 8) Up/down reversal

- Click the  icon in the top menu, or select [Edit] -> [Flip] -> [Vertical].



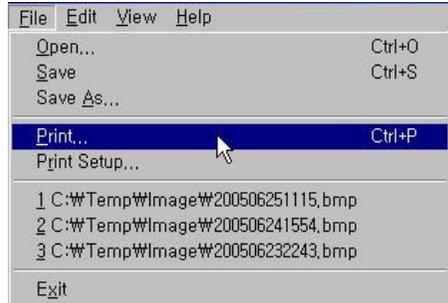
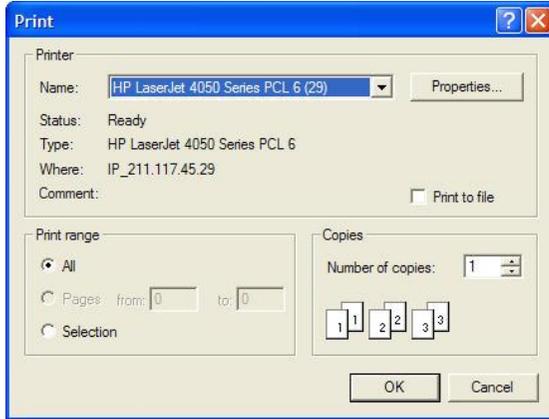
### 9) Save

- To save in the basic folder and file name, click the  icon in the top menu or select [File] -> [Save].
- To save in a different name, select [File] -> [Save as] and enter a file name. If you want to save in bitmap, save as file name.bmp or if you want in Jpeg, save as file name.jpg.



## 10) Print

- 1 Click the  icon in the top menu, or select [file] -> [print].
- 2 When the print window appears, select the print option and click [ok] button.



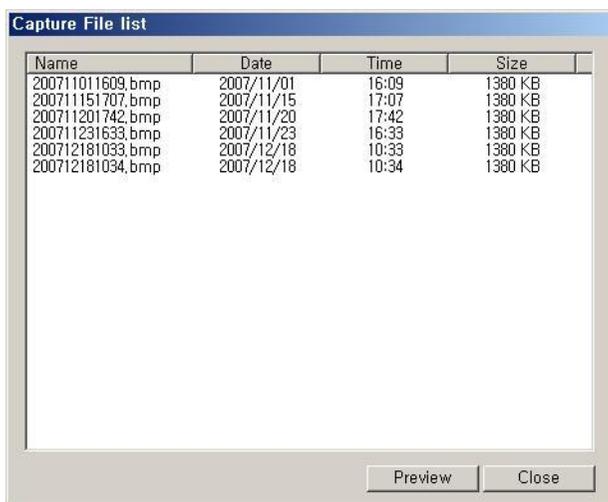
## 11) Image print



Print out a saved image through the printer

### (1) Image print

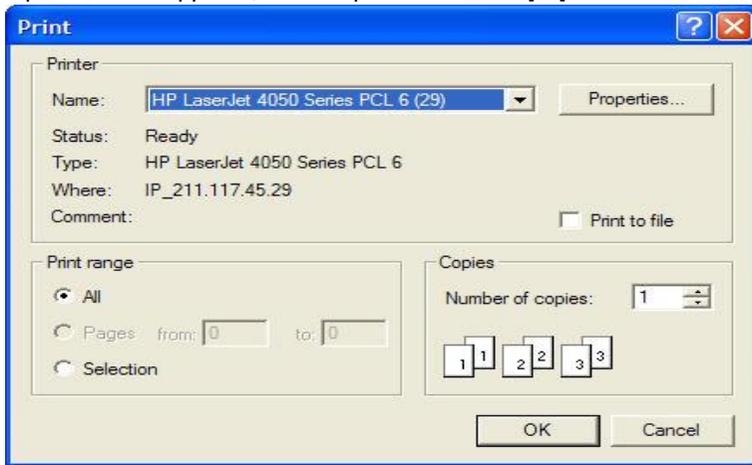
- Click the  button on the right of the program screen. The saved image file list window saved by the monitoring screen capture will appear.



- Select the image file in the file list window, and click the [preview].  
The preview window appears.
- Enter a title of print to "title" in the preview window, and an explanation of print to "memo."  
Click the [print] button.



- ④ When the print window appears, select a printer and click [ok].



## 1-13. To save Real time pictures



It records real time pictures

### 1) To save Real time pictures

- ① Click the  button in the program screen. The **REC** mark light turns on and recording starts.
- ② The saving path of recorded files is the specified folder in 1-5-9. For instance, the file saved on 15th December 2007 becomes 2007W12W15W170000\_Live folder.
- ③ To stop recording, click  button again. The **REC** mark will disappear from the screen and recording stops.

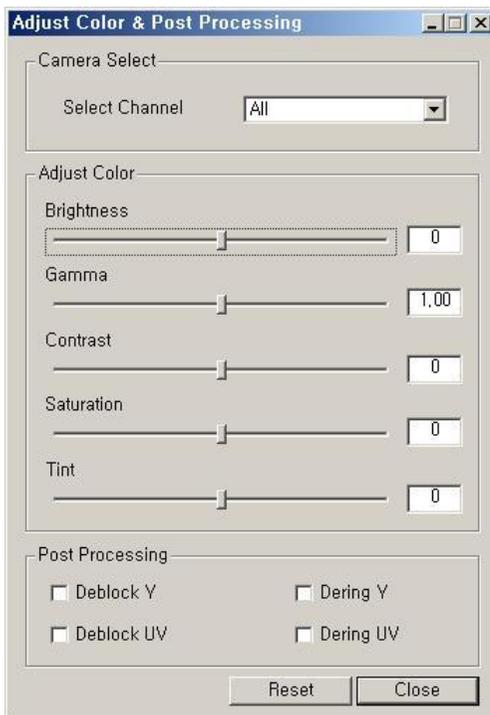


## 1-14. To adjust colors



It adjusts the brightness, Gamma, Contrast, Saturation, Tint and Post processing Filter of the channel pictures.

- ① Click  button in the program screen. There appears adjust color & post processing window.



- ② Click channel check box in the adjust color & post processing window and select a channel. Drag Brightness, Gamma, Contrast, Saturation, Tint adjust columns and adjust.
- ③ Press [initialization] button and return to the initialization.
- ④ When color adjustment is completed, press [close] button.

 When adjust Brightness, Gamma, Contrast, Saturation, and Tint, you can view the real time change of the monitoring screen. (MV series DVR model does not have this function.)

## 1-15. Full screen modes



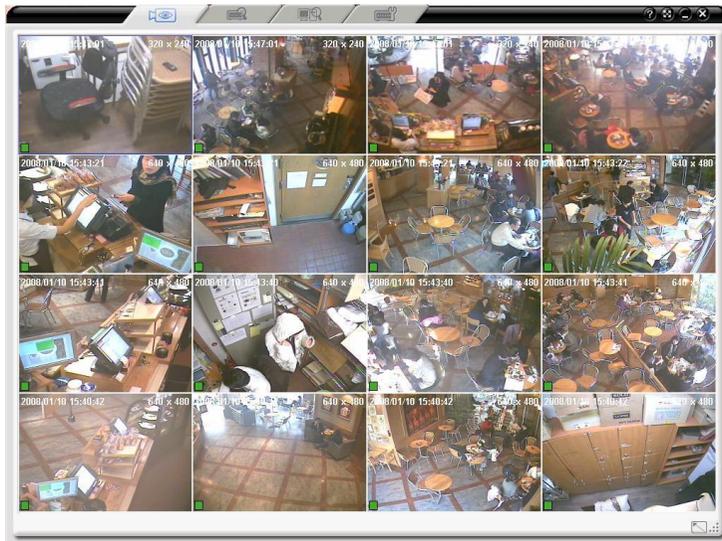
It changes a real time monitoring screen to a full screen mode.

### 1) Full screen view

① Click  button in the program screen and you will have a full screen mode.



② To return to the basic mode, click the  button in the program screen.



## 1-16. Record search

It searches and reproduces long distance DVR recorded pictures in real time.



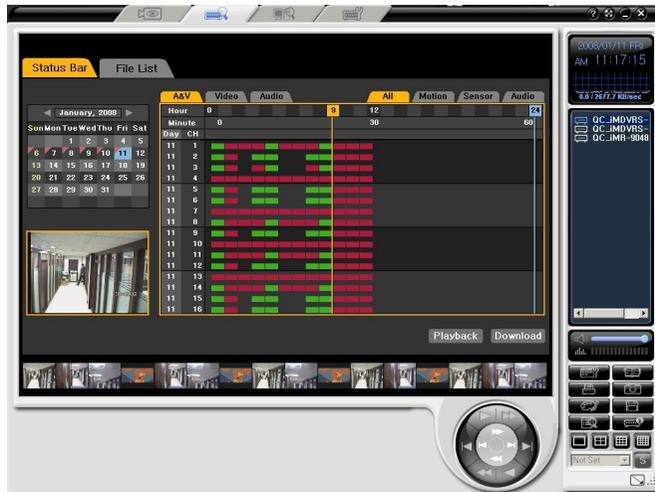
### 1) To search Recording

① Select  tab on the initial screen of the program.

② Drag the DVR unit name you want to search from the connected DVR lists on the right and drop it on the monitoring window.



③ When you move a slide bar, pictures in each channel will appear if there is saved files at the time. The unit of a column is an hour, and the color of column indicates record events.



- ④ Select playback or download and start a search per minute. When you move a slide bar as shown the picture below, pictures in each channel will appear. The unit of a column is a minute, and the color of column indicates record events.



2) Select a search method

**Status Bar**

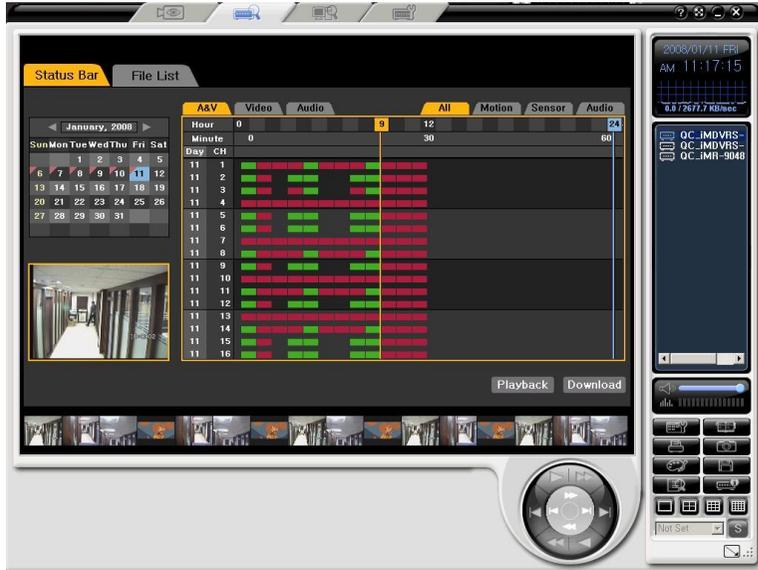
It indicates recorded pictures by hour/minute unit in a bar graph.

**File List**

It indicates recorded pictures by hour in a list mode.

① Click [status bar] or [file list] on the search window and select a search method.

**Status Bar**



**File List**



- ② If you change time in DVR system, recording events before time change turn into blue color

**Status Bar**



Remote Management Software

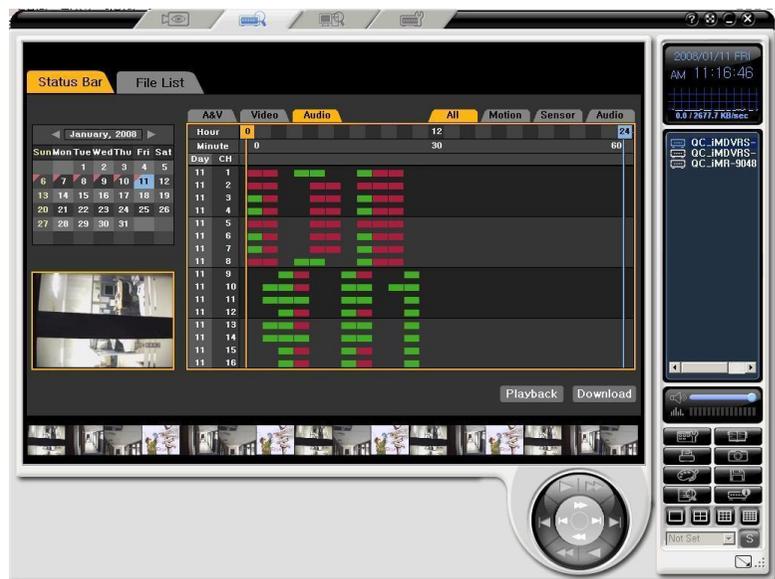
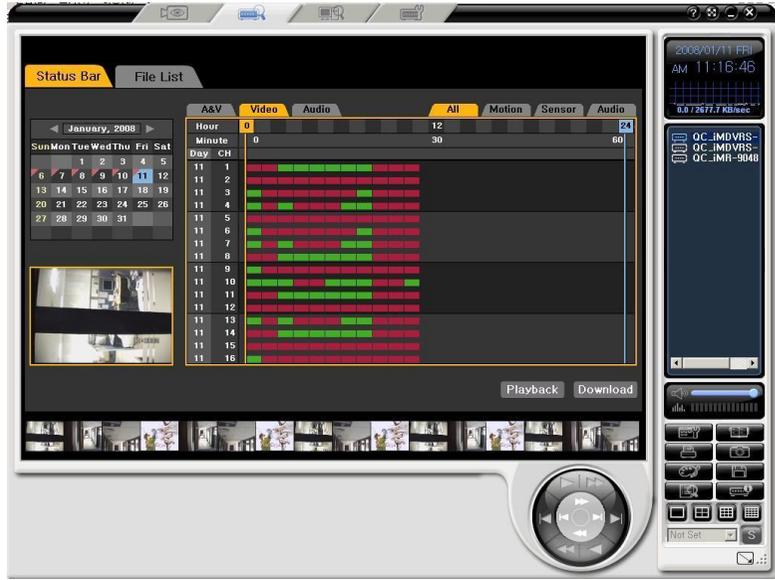
**File List**



- ③ You can search DVR system and recorded picture and voice. Pictures and voices can be searched separately.

**Status Bar**

Remote Management Software



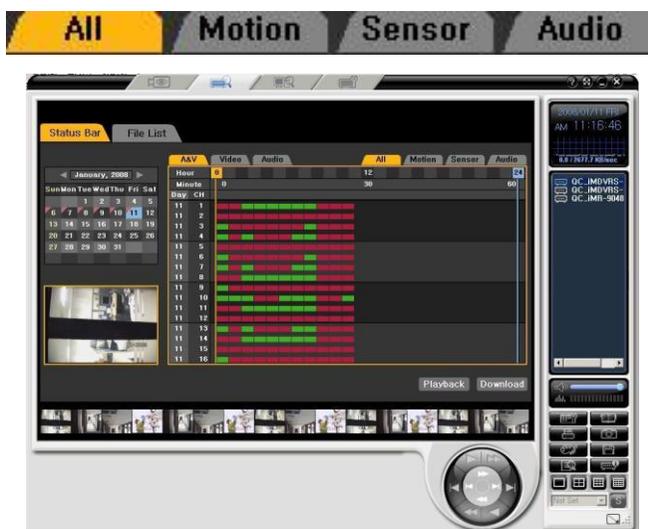
### 3) Select time and date

① The date recorded on the search screen is checked with red color on the edge. Select a date you want.

📖 The starting day of the week in the calendar can be Sunday or Monday according to the country.



② Select the recorded date in the calendar, and then the recorded status on the day will appear from 0 to 23 hour as shown in the picture below.



- ③ Select A&V, Video, Audio tabs on the top of the search screen, then the recorded status in audio or video will appear. Select All, Motion, Sensor, Audio tabs, and then the recorded status in the recorded events will be indicated.



- ④ To search by minute, press playback or download button in the selected hour. You can find the minutes when the pictures were recorded.

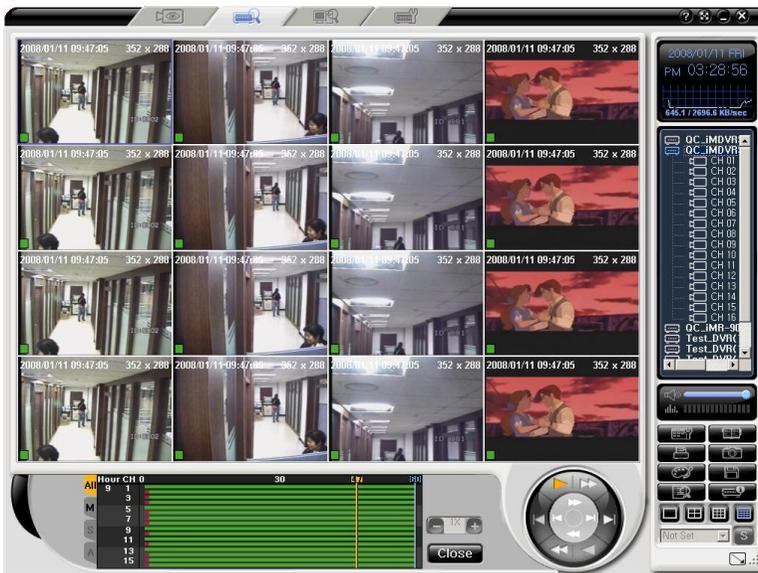
		A&V	Video	Audio	All	Motion	Sensor	Audio
Hour	0				10	12		24
Minute	0					30		60
Day	CH							
11	1							
11	2							
11	3							
11	4							
11	5							
11	6							
11	7							
11	8							
11	9							
11	10							
11	11							
11	12							
11	13							
11	14							
11	15							
11	16							

## 1-17. Playback

**Playback** : It playbacks the long distance DVR recorded pictures in real time

1) To playback

- ① Specify the time and click the playback button. A playback screen will appear as shown in the picture.



- ② Using the playback control button, regulate the playback speed. Press the playback start button.



	Forward Play
	Forward Single Frame Play
	Fast Forward
	Reverse Play
	Reverse Single Frame Play
	Fast Rewind

	Forward Play	It starts in x1 speed, and speed can be regulated from x1/16 to x1/2, or from x1 to x16 in one channel mode.
	Reverse Play	

	Fast Forward Fast Rewind	it starts in x 30 speed, and speed can be regulated from x 30 to x 300 in one channel mode.
※	You can increase or reduce the playback speed by using  button on the left of playback control button in one channel mode.	
※	It supports a successive playback. If you do not stop playback, it continues to playback to the following time. When there is no file in the following time, it stops. If the index number of the recorded file is different, it does not continue its playback and stops its function.	

- ③ To stop playback, click the close button.
- ④ When the playback stops, it returns to the previous search screen.
- ⑤ If you want to playback files recorded in another time continuously, repeat previous steps.
- ⑥ Limitation

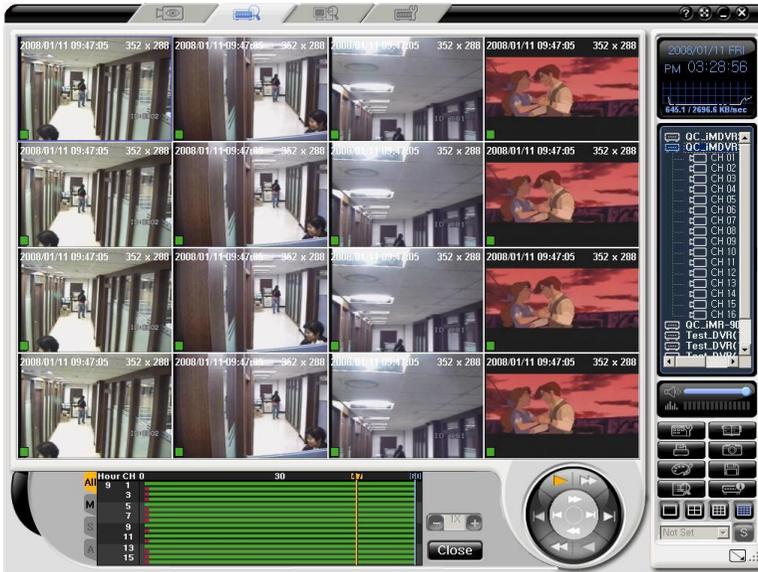
**1ch Mode (Full Screen)**

**Normal Mode (4ch~16ch divided screen)**



	Available		N/A
	Available		Available
	Available		Available
	Available		Available
	Available		N/A
	Available		N/A
	Available		Available
	Available		N/A

- ⑦ You can playback audio files only in 1 mode channel
- ⑧ Only 16 channel mode    buttons can be
- ⑨ When playback in 16 channel mode, the following functions are limited as shown in the picture below



If you want to go to a different minute during playback, move the slide bar to, or click the minute you want to select.

- ⑩ When you playback in 1 channel mode, you can use all the function shown in the picture below



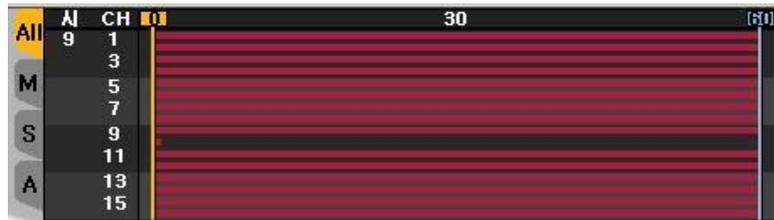
 You can use capture and print function in playback mode

## 2) Record and playback per event

Record search



Playback



- ① To use playback function per event, search each event in playback search mode and playback
- ② or select an event from the status bar during playback.
- ③ When you playback in 1 channel mode, you can use all the function shown in the picture below

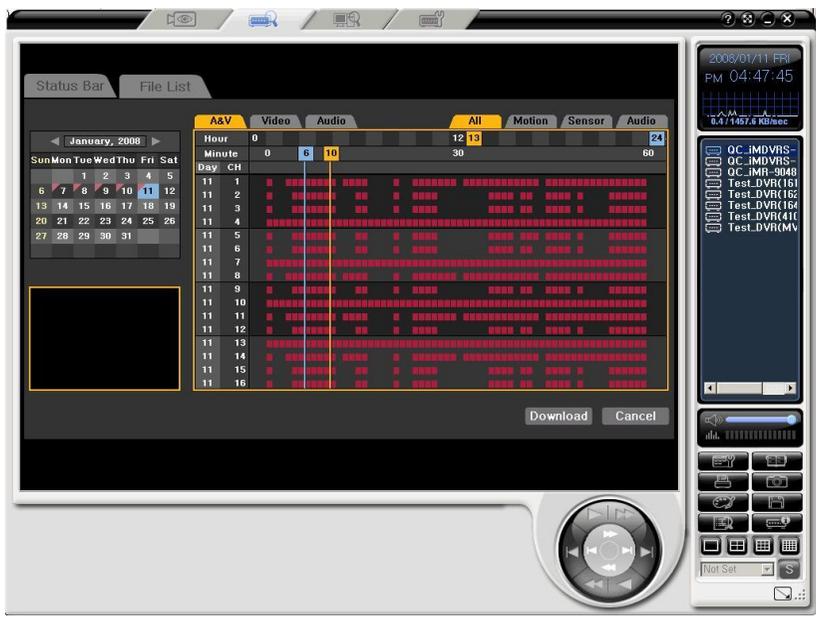


3) Recorded pictures download

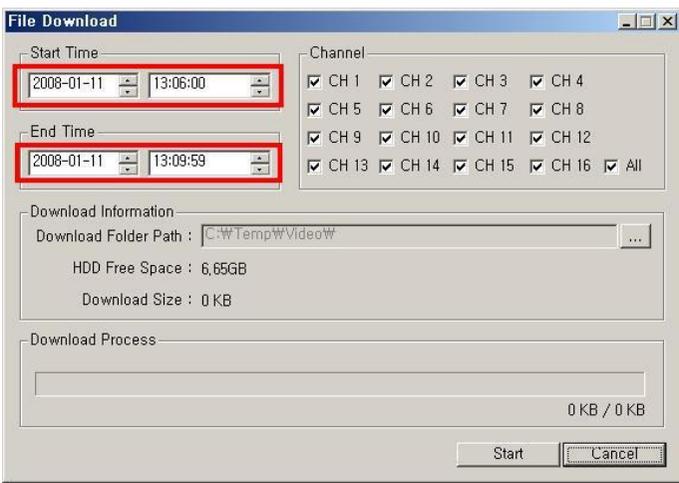
- ① In the search mode, drag the time selection line from the search window, and select the time to start download. Click the download button.



- ② Select time first, and then decide starting minutes and closing minutes. Click the download button.



- ③ After selection, press the download button. There appears the download selection window. Choose the starting and closing time.

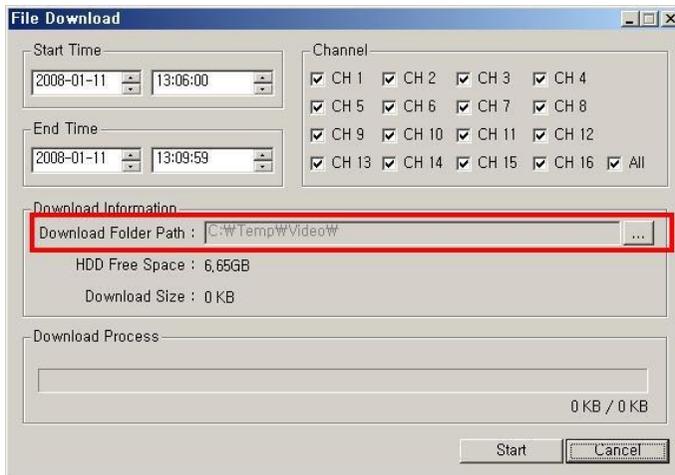


 A continuous download is possible, so you can download several hours file by selecting successive hours

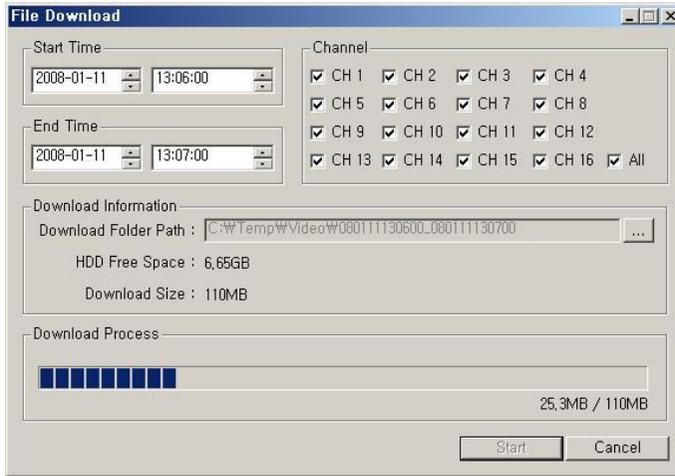
④ After setting time, select channels to download as shown in the picture below and check.



⑤ After setting channels, specify the storage path as shown in the picture below.



- ⑥ After completing all settings, press the start button. The saving folder name and the file size for download appear as shown in the picture below.



- 📖 The download file is produced and saves in a folder specified by application and in download starting and ending time.

Ex) if the file is saved from 7 hour 59 minutes 0 second to 8 hour 1 minute 59 seconds on 14th February 2007, the file name is.

- ⑦ When a download is completed, a message box appears. Click the ok button.



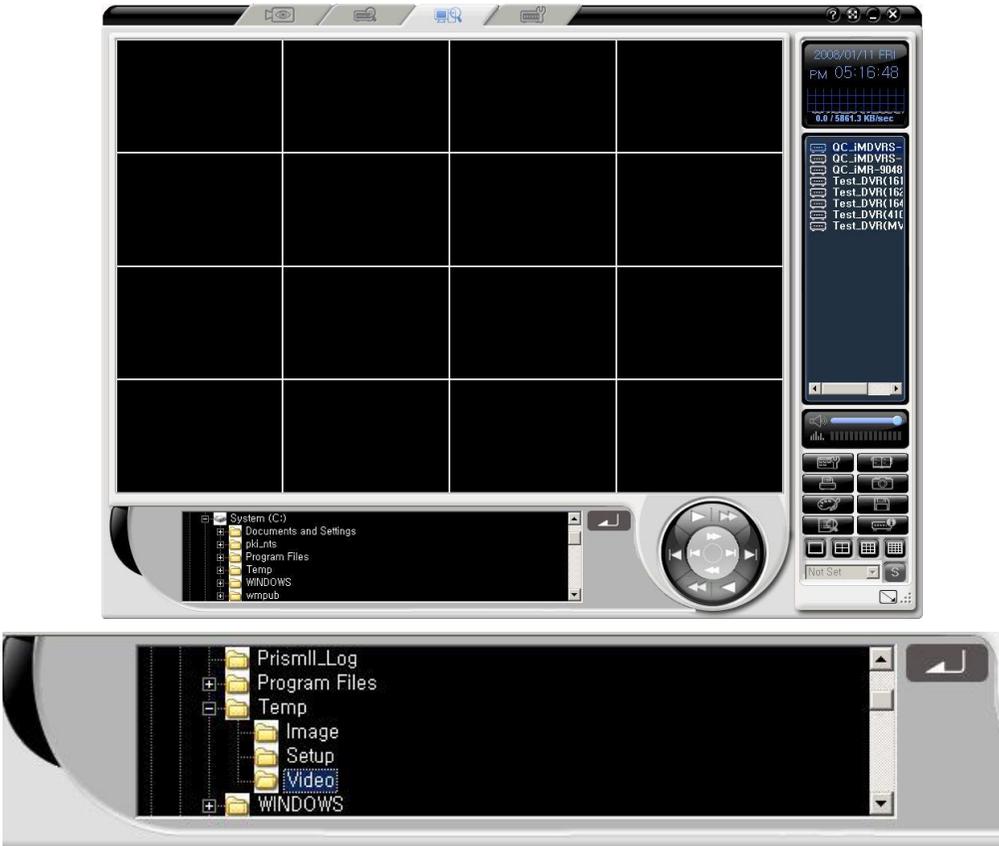
## 1-18. Local Player



Remote monitoring and play back in real time

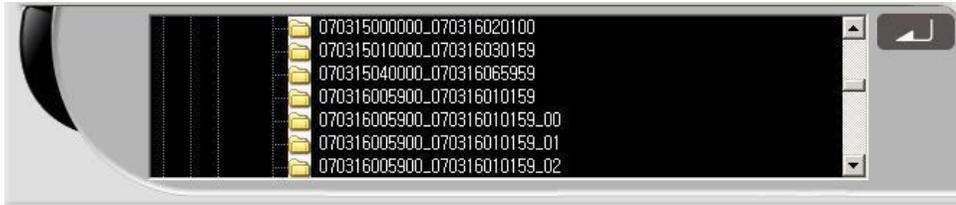
### 1) Record file search and playback

- ① Select the  tab on the program initial screen
- ② There appears the initial screen with the folder search window as shown in the picture below.



## 2) Record file search and playback

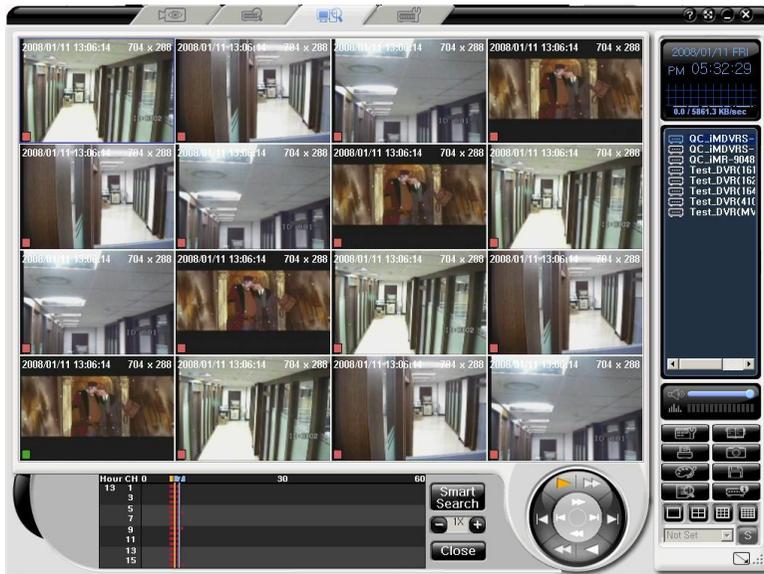
- ① Search the folder list on the program screen in the local playback mode. Search the folder which has the download or backup record files



- ② The folder with a recorded file has starting date and time and finishing date and time in its name. Select a backup folder or a folder for download.



- ③ After selecting a folder for playback, click the [Play] button, and then the first screen in the selected time appears stand still as shown in the picture below.

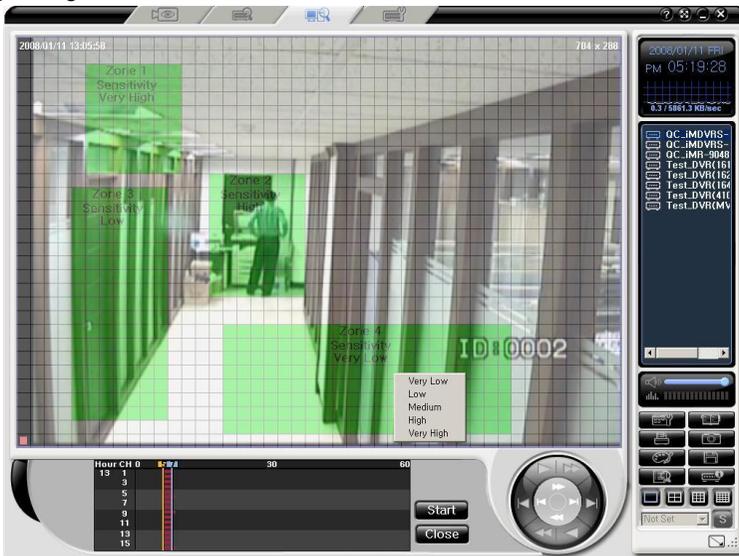


### 3) Smart search function

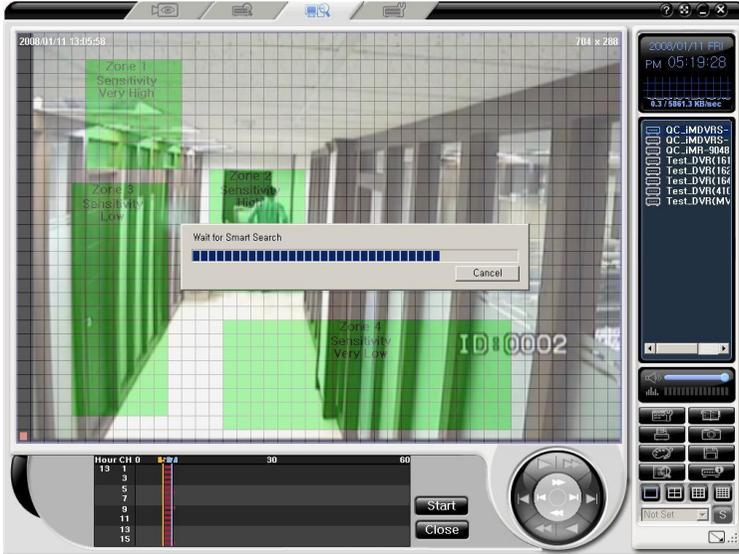
① To start a smart search, press [smart search] in playback or start mode, and then the playback stops.



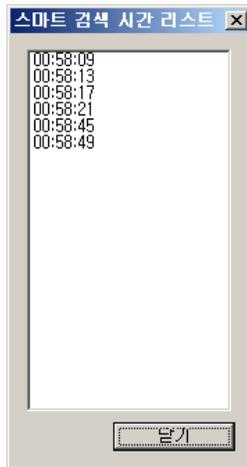
② Select a channel for the smart search and double click. There appears the Grid window in which the zone of the smart search can be specified. Four zones can be selected; they can be specified by dragging the mouse. The sensitivity can be chosen in 5 steps by pressing the right mouse button.



- ③ When the smart search starts and there is a movement in the specified zone as shown in the picture below, a screen appears.



- ④ When the smart search completes, the times when there are movements in the specified zone are shown in the list. If you click a list, the search moves to the time zone of the list. With double clicking, the playback of the time zone starts.



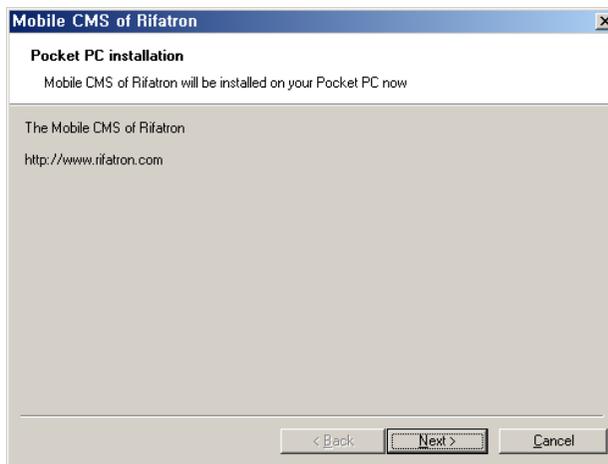
# 2. MCMS(PDA Viewer)

## 2-1. Overview

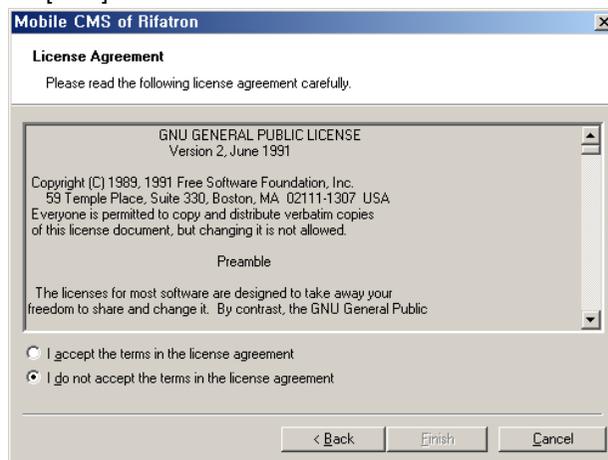
This program is designed to allow the user to see images through the PDA.

## 2-2. Installation

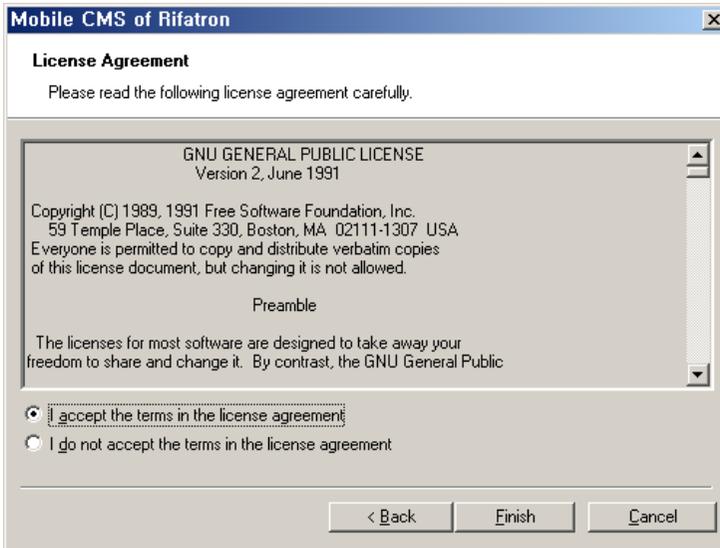
- 1) PDA viewer installation file will be provided 2 different types(\*cab, \*exe)\*cab file is needed to copy on PDA and install it.
- 2) And you may execute \*exe file in a PC and install it to PDA through Active Sync.In order to install the PDA Viewer, you have the Microsoft Active Sync (Version 4.0 or higher) installed in your computer.
- 3) After your computer and PDA are synchronized, run the CMSSetup.exe to install the MCMS.



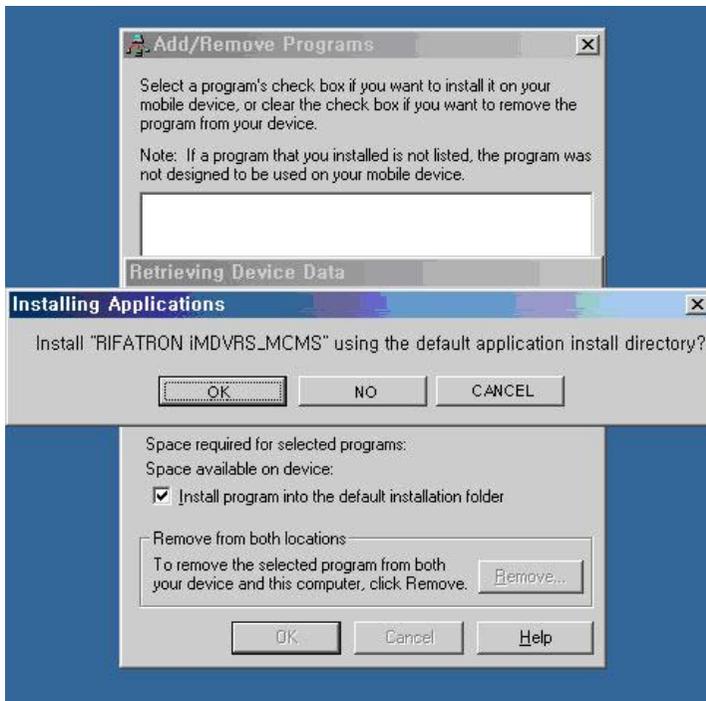
- 4) Click the [Next] button.



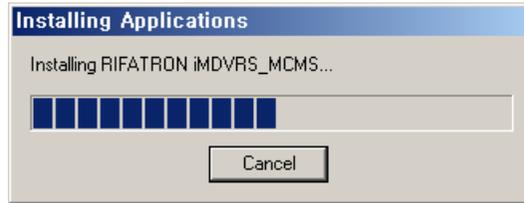
- 4) Read through the End User License Agreement(EULA) carefully. If you select the item related to the acceptance, the [Finish] button is enabled. To continue to install the program, click the [Finish] button.



5) If you click the [Yes(Y)] button on the next screen, the system checks the connection with the PDA and starts the installation from the PDA.



- 6) This is the screen during the installation at the user's computer side. You can complete the additional installation tasks from the PDA.



- 7) This is a screen when the PDA installation is in process.



## 2-3. Running and using

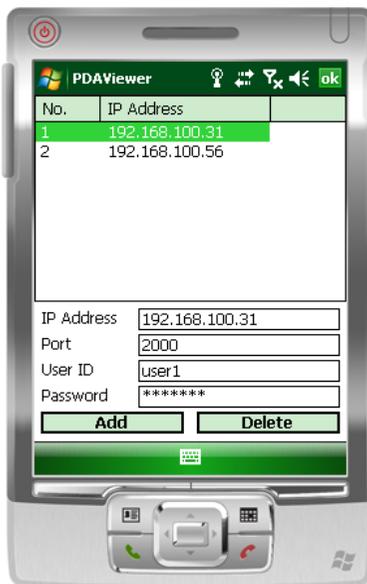
### 1) Address Book

(1) You may be able to input DVR information(IP, Port, ID and Password) you want to connect.

(2) Select "Tools > Address Book" or click **ADD** on the menu to view the screen.



(3) It is possible to register DVR by adding DVR's IP, Port, User ID and Password. On the other hand, you may delete from the list by using "Delete" key.



2) DVR connect

(1) Select Tools > Connect or click  to connect.



(2) Click IP you want to connect and click "Connect".



(3) You will see "Connecting...." message while it is being connected.



(4) If you fail to connect, you will see following screen.



(5) When you reach connecting, you will see following screen and connected channel no. will be activated.



3) PTZ control

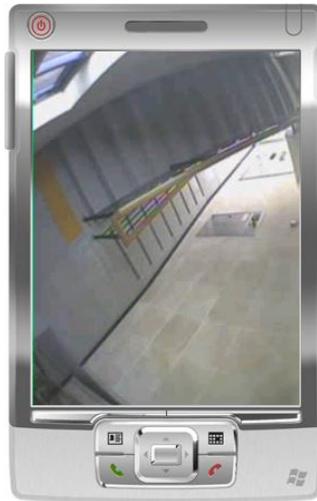
(1) You may control PTZ camera with following buttons.



(2) You may save value of PTZ camera by using Pan/Tilt/Zoom/Focus up to 8values.

4) Full Screen mode

(1) Double click designated channel for full screen mode.



(2) By one more clicking, full channel mode will be disappeared.

5) Audio output

(1) Select Tools > Audio on or click  on the toolbar for audio.



6) Disconnect

(1) Select Tools > Disconnect or click  for Disconnect.



# 3. Transcoder

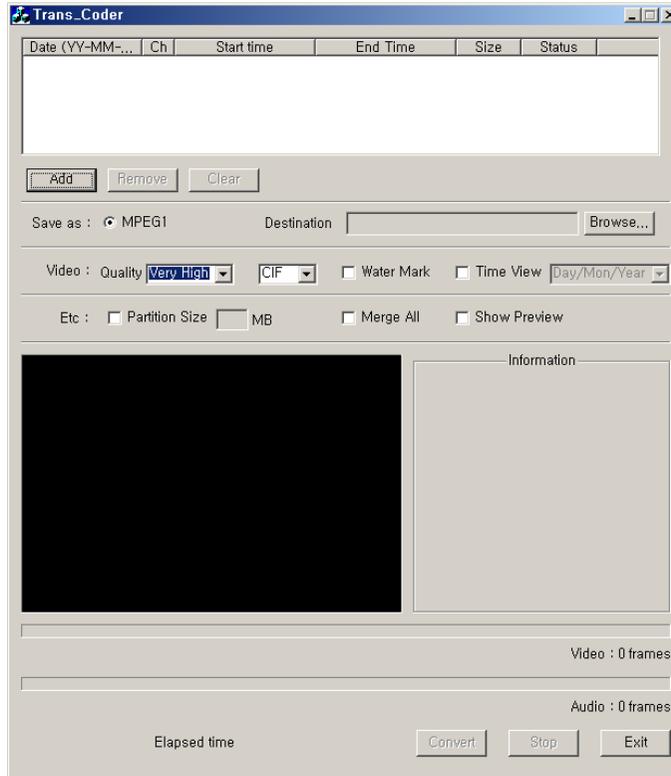
## 3-1. Overview

This program transforms the MPEG-4 format download and recorded files to MPEG-1 format files, allowing the user to see them using the Windows Media Player.

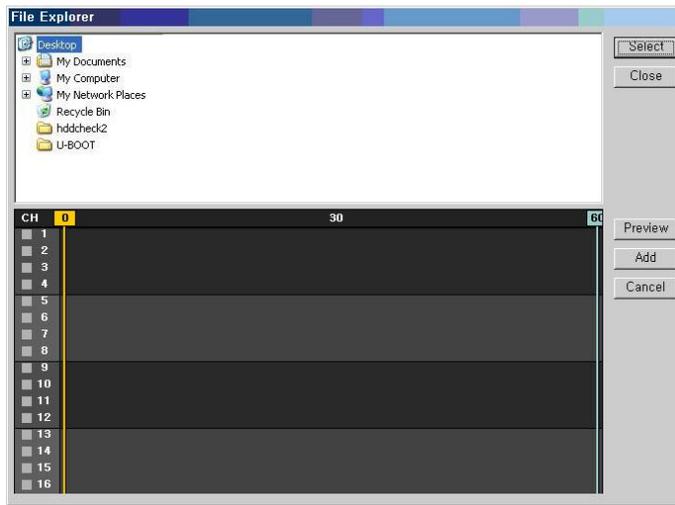
## 3-2. Running and using

(1) Click the Start > Programs > DVR Remote Access Program > CMS> Trans Coder menu.

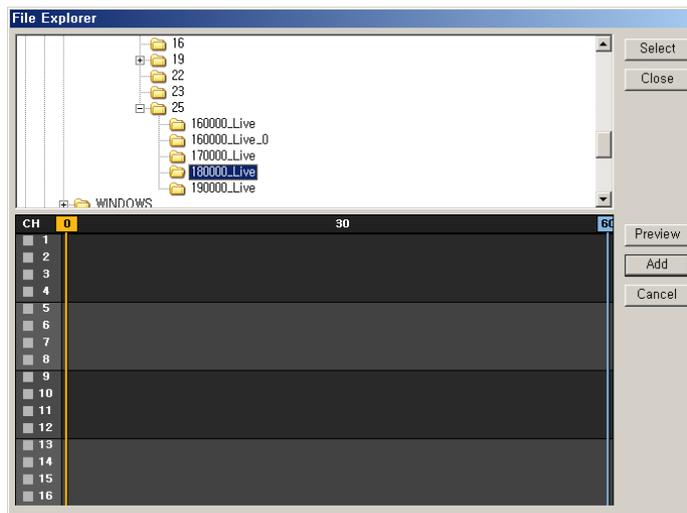
(2) Then, the following screen is displayed.



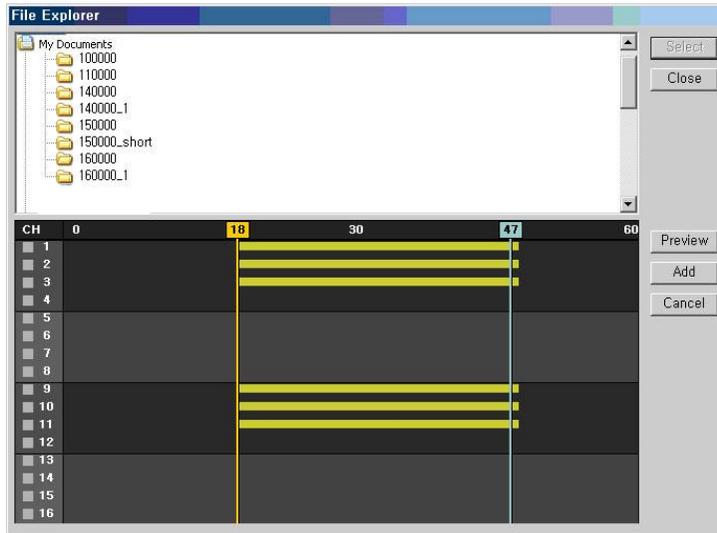
(3) Click the [Add] button to search the file you want to transfer.



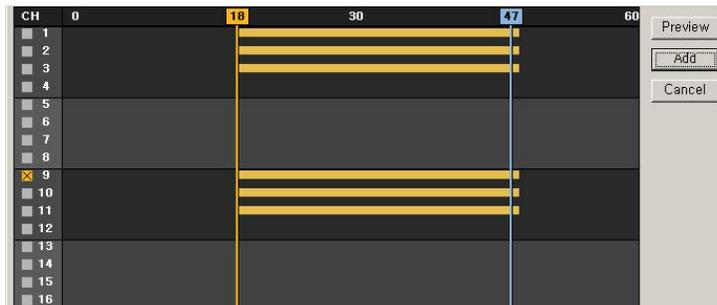
(4) Select the directory for the desired time zone from the directory list, and click the [Select] button on the right-side of the screen.



- (5) Once the selection is completed, the corresponding zone of the image is displayed as a graph.



- (6) If you select a channel from the list, the front side of the channel is indicated with the  mark.



- (7) To preview images of the corresponding channel, click the Look ahead button.



Start – plays images

End – stops the Look ahead and closes the dialog box.

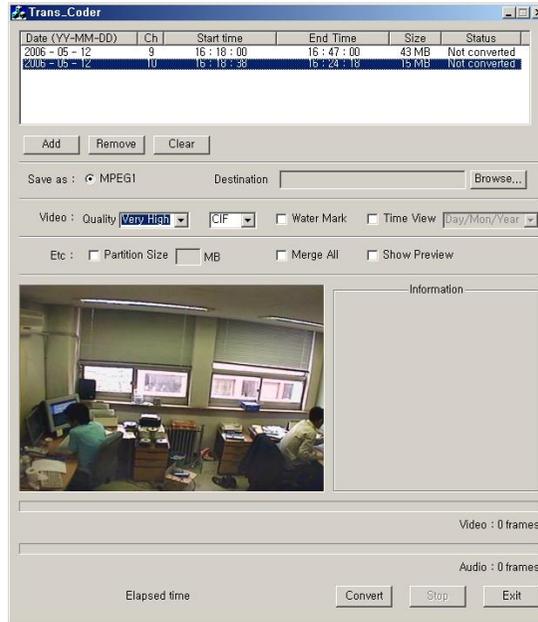
Capture – saves the corresponding image as a picture file.

Color – changes the color of texts displayed on the screen.

Check - stops the Look ahead and closes the dialog box.

Cancel – closes the Look ahead dialog box.

(8) To remove an image from the list, select it and click the [Delete] button.

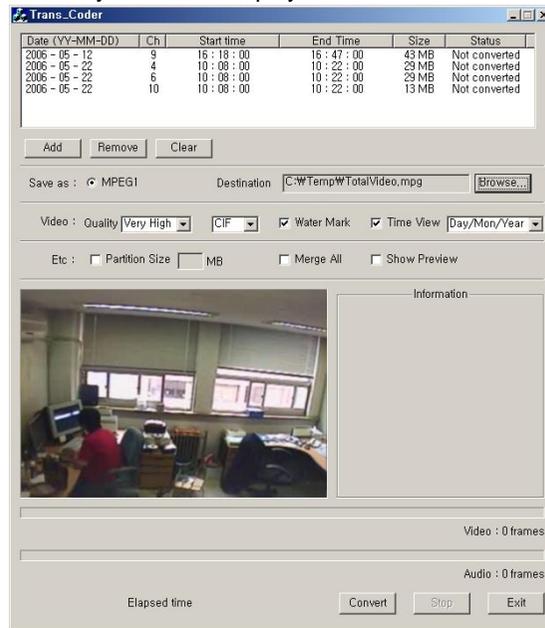


(9) This shows that an image is removed from the list by using the [Delete] button. (To clear all images from the list, click the [Erase] button.).



(10) Only the MPEG1 file format is supported.

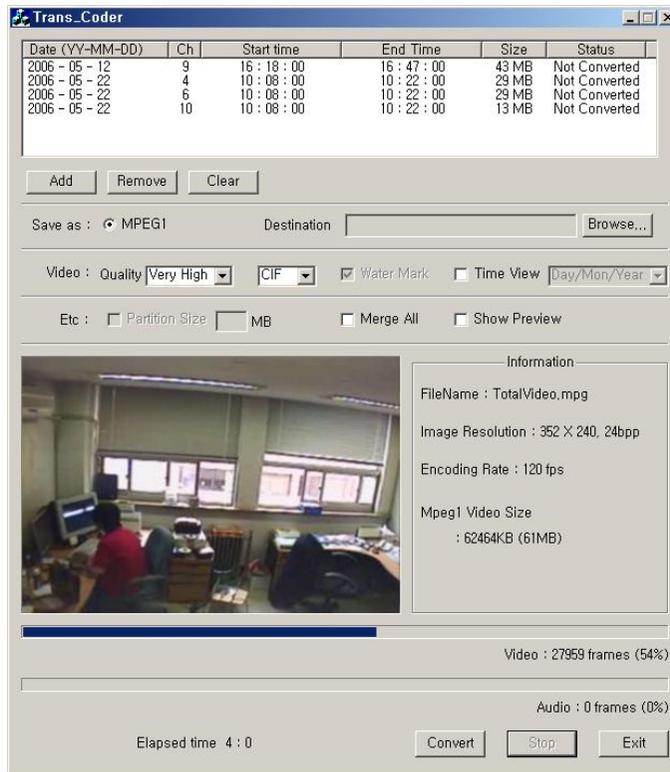
(11) Specify a file name that you want to display in the Destination.



- (12) Quality represents picture quality and consists of Very highest – high – middle – low – lowest steps
- (13) CIF / FULL indicates the resolution.
- (14) The predefined watermark is inserted into the image. It is not visible to the naked eyes but a dedicated detector.
- (15) If Time is selected, the data and time that you intend are included on the screen.
- (16) If you select the fragment size from the Etc and enter a size, the image is segmented according to the input unit. (Unit: Mega Byte)
- (17) With the Merge All, you can merge images by channel and by time as one file.
- (18) If you select the Show Preview, the following warning message is displayed. You can see the transformation process on the screen although its speed decreases a little.



- (19) This screen shows the transformation process. To stop it, click the Stop button.



(20) Once the transformation is completed, a completion message is displayed as in the following figure. Then, click the [OK] button.



# 4. Calculator

## 4-1. Overview

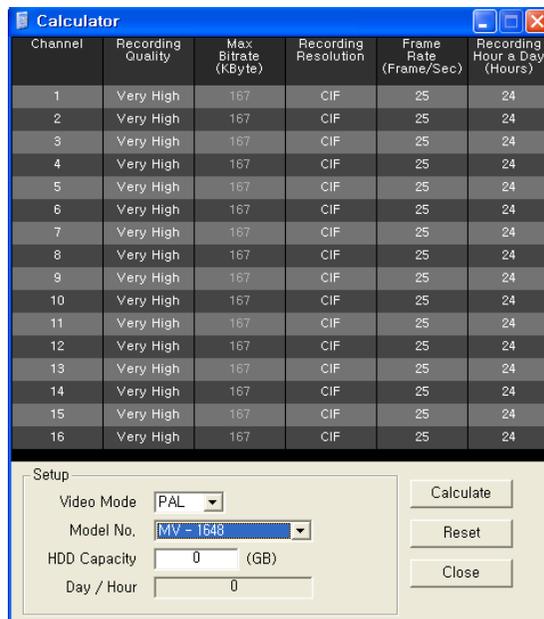
(1) The calculator program estimates the record duration depending on the HDD space and record settings.

## 4-2. Running and using

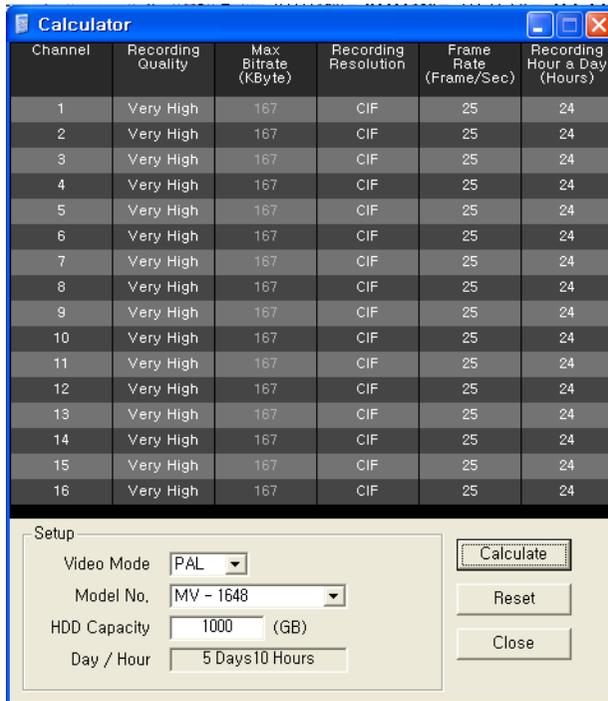
1) How to run it

(1) Click the Start > Programs > DVR Remote Access Program > CMS> Calculator menu

(2) Basic screen



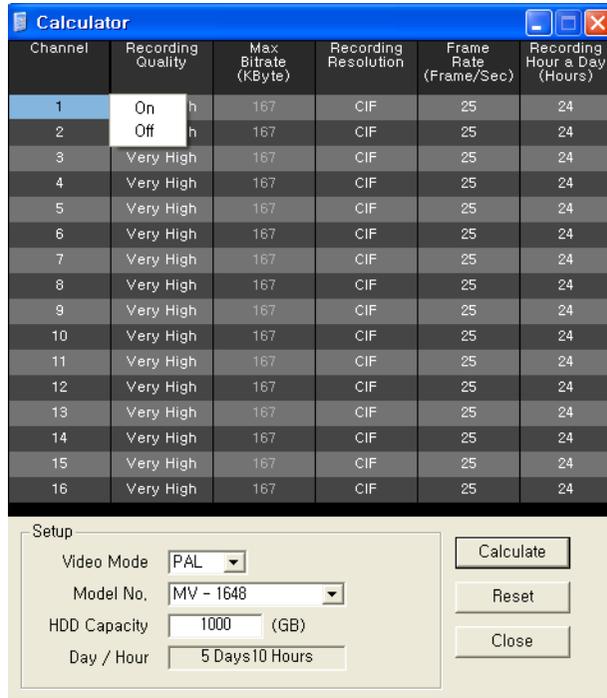
- (3) Video Mode: There are two types; NTSC and PAL. (It depends on the camera specification.)
- (4) Model number: Enter the model number of the DVR system.
- (5) HDD CAPACITY(GB): Enter the total space of the HDD. (Unit: Giga Byte)
- (6) Date/Time: calculates values are displayed. ( \*\* Days \*\* Hour)



## 2) Description on detail functions

### (1) Channel

To ON/OFF all channels, click the Channel in the title bar.



### (2) Recording Resolution

Controls the resolution of the recording images

NTSC type : CIF – 352\*240 / Field – 704\*240 / Full – 704\*480

PAL type : CIF – 352\*288 / Field – 704\*288 / Full – 704\*576

To change the resolution of all channels with an equal value, click the Recording Resolution on the title bar. You can modify the resolution of a channel. If you click it, the color is changed to the blue color. Select an item in the context menu by double-clicking it.

**Calculator**

Channel	Recording Quality	Max Bitrate (KByte)	Recording Resolution	Frame Rate (Frame/Sec)	Recording Hour a Day (Hours)
1	Very High	500	CIF	CIF	24
2	Very High	500	CIF	Field	24
3	Very High	500	CIF	Full	24
4	Very High	500	CIF	25	24
5	Very High	500	CIF	25	24
6	Very High	500	CIF	25	24
7	Very High	500	CIF	25	24
8	Very High	500	CIF	25	24
9	Very High	500	CIF	25	24
10	Very High	500	CIF	25	24
11	Very High	500	CIF	25	24
12	Very High	500	CIF	25	24
13	Very High	500	CIF	25	24
14	Very High	500	CIF	25	24
15	Very High	500	CIF	25	24
16	Very High	500	CIF	25	24

Setup

Video Mode:  (dropdown)

Model No.:  (dropdown)

HDD Capacity:  (GB)

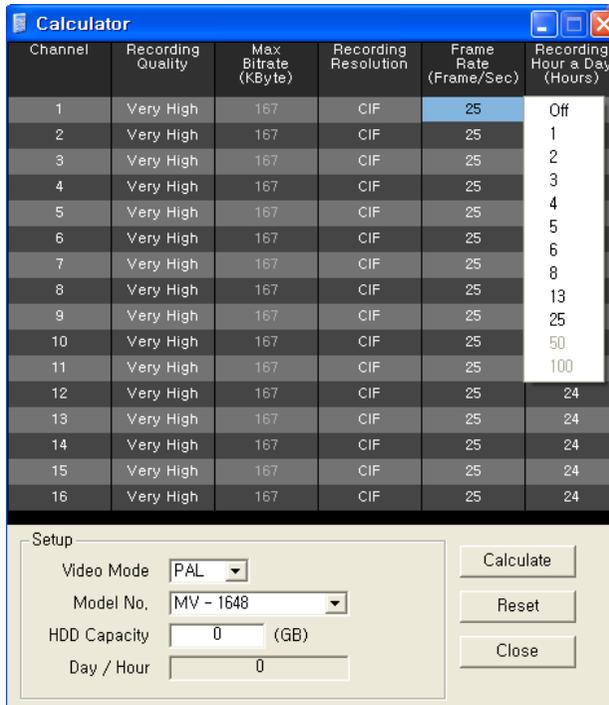
Day / Hour:

Buttons: Calculate, Reset, Close

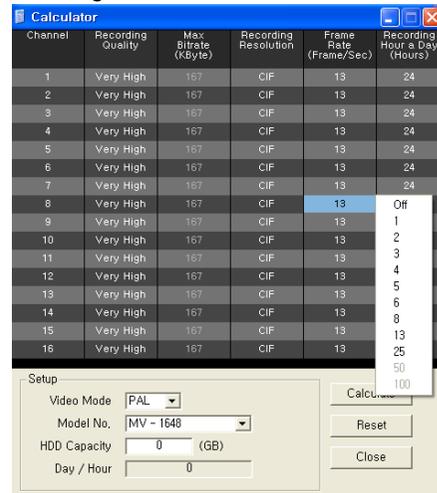
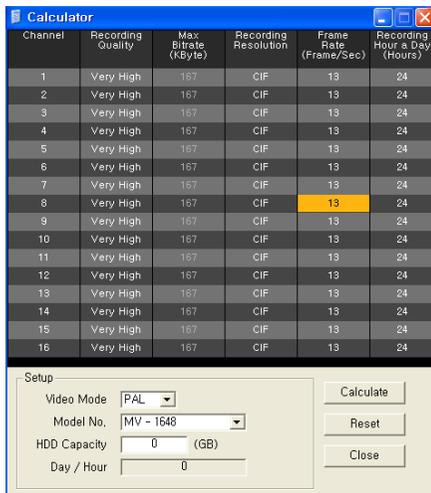
#### (4) Frame Rate (Frame/Sec)

Enter the number of frames per second of a recording image.

To change all channels with a same frame rate, click the Frame Rate (Frame/Sec) in the title bar.



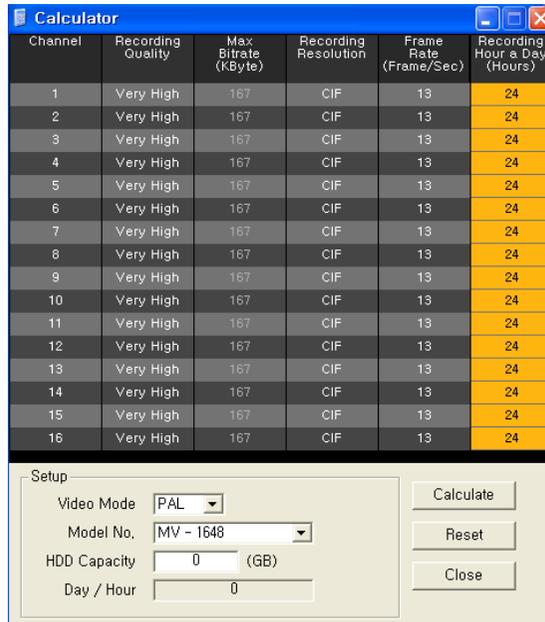
You can modify the frame rate of a channel. If you click it, the color is changed to the orange color. Select one in the context menu by double-clicking it.



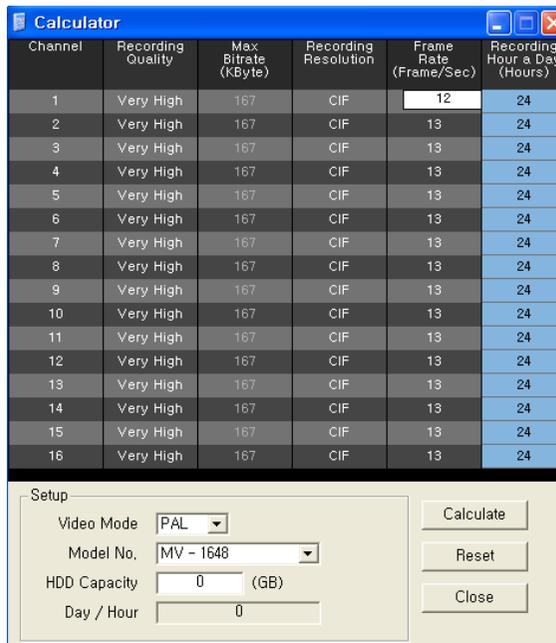
(5) Recording Hour a Day (Hours)

Specifies recording hours in a day.

To change all channels with a same value, click the Recording Hour a Day (Hours) in the title bar.



You can modify the recording hours of a channel. If you click it, the color is changed to the orange color. Select one in the context menu by double-clicking it.



- (6) To initialize the value, press the Reset button.
- (7) If you press the Calculate button after all input items are selected, the calculated output value is displayed in the Date/Time.

The screenshot shows a window titled "Calculator" with a table of recording parameters and a "Setup" section below it.

Channel	Recording Quality	Max Bitrate (KByte)	Recording Resolution	Frame Rate (Frame/Sec)	Recording Hour a Day (Hours)
1	Very High	167	CIF	25	24
2	Very High	167	CIF	13	24
3	Very High	167	CIF	13	24
4	Very High	330	Field	25	24
5	Very High	167	CIF	13	24
6	Very High	167	CIF	13	24
7	Very High	167	CIF	13	24
8	Very High	167	CIF	5	24
9	Very High	660	Full	25	24
10	Very High	167	CIF	13	24
11	Very High	167	CIF	13	24
12	Very High	167	CIF	13	24
13	Very High	167	CIF	25	24
14	Very High	167	CIF	25	24
15	Very High	167	CIF	13	24
16	Very High	167	CIF	13	24

Below the table is a "Setup" section with the following fields and buttons:

- Video Mode: PAL (dropdown)
- Model No.: MV - 1648 (dropdown)
- HDD Capacity: 1000 (input) (GB)
- Day / Hour: 6 Days 2 Hours (input)
- Buttons: Calculate, Reset, Close

# 5. Network Upgrade

## 5-1. Overview

(1) This is a DVR system upgrade program.

## 5-2. Running and using

1) Running

(1) Click the Start > Programs > DVR Remote Access Program > CMS > Network Upgrade

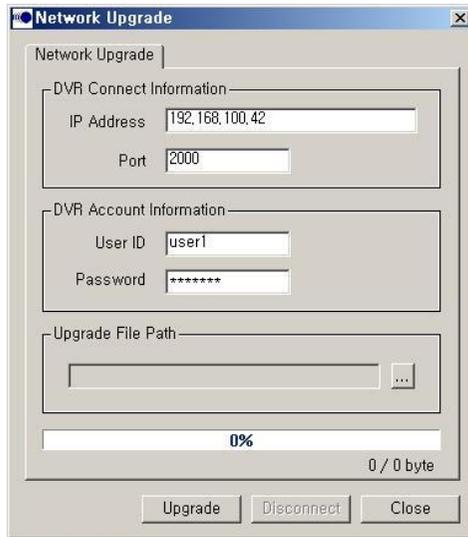
(A) Both DVR and PC must be connected with network .

The screenshot shows a 'Network Upgrade' dialog box with the following fields and controls:

- DVR Connect Information:**
  - IP Address: [Empty text box]
  - Port: [2000]
- DVR Account Information:**
  - User ID: [Empty text box]
  - Password: [Empty text box]
- Upgrade File Path:**
  - [Empty text box] [Browse button (...)]
- Progress:** 0% (0 / 0 byte)
- Buttons:** Upgrade, Disconnect, Close

(B) Complete each blank.

- 1) IP address: DVR IP address
- 2) Port: 2000(Default)
- 3) User ID
- 4) Password

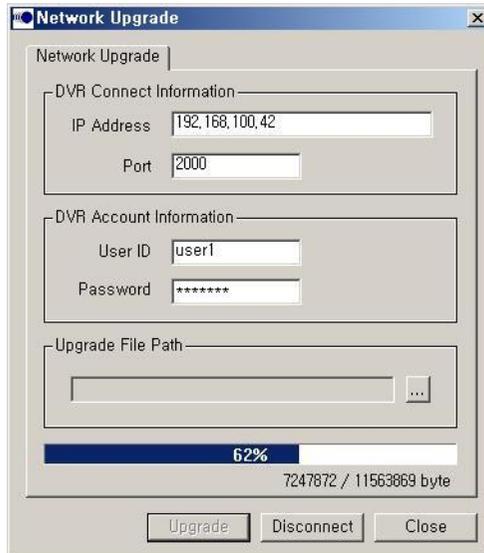


C) Select a file you want to upgrade.(\*.bin)



To add upgrade files, select the  
Click the [Open] button by selecting all of three files that are shown on the screen.

D) Click “Upgrade” button to upgrade.



E) You will see popup window which show “The file is transmitted”.

F) DVR upgrades itself and reboot automatically.